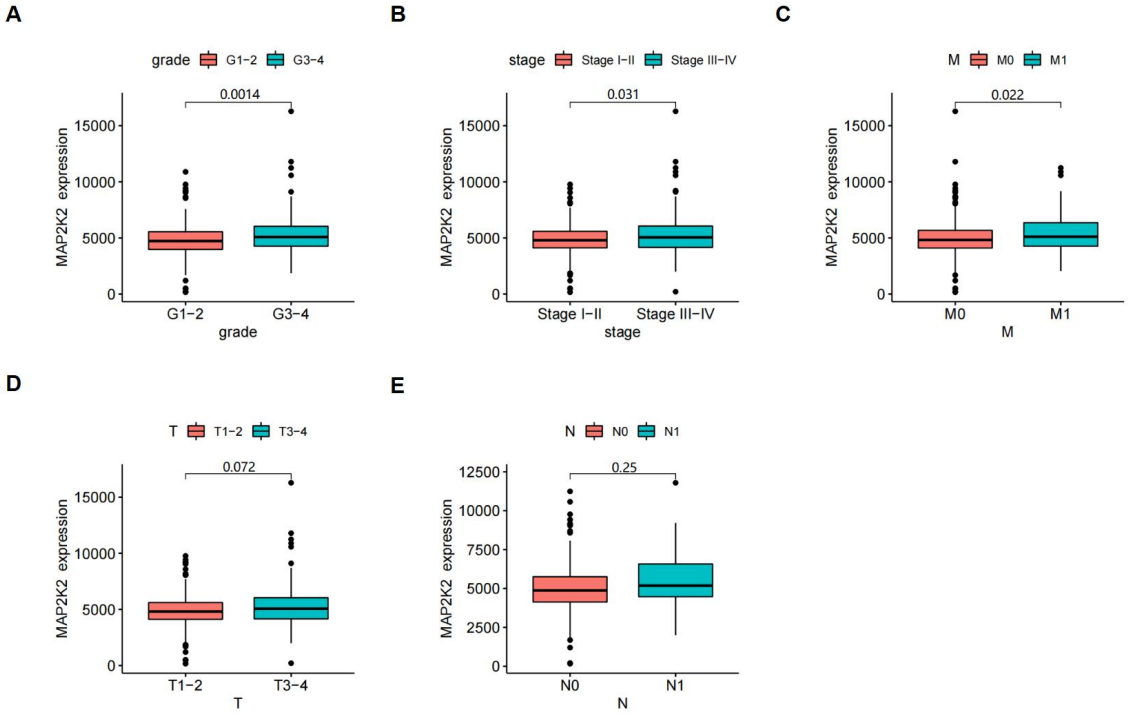
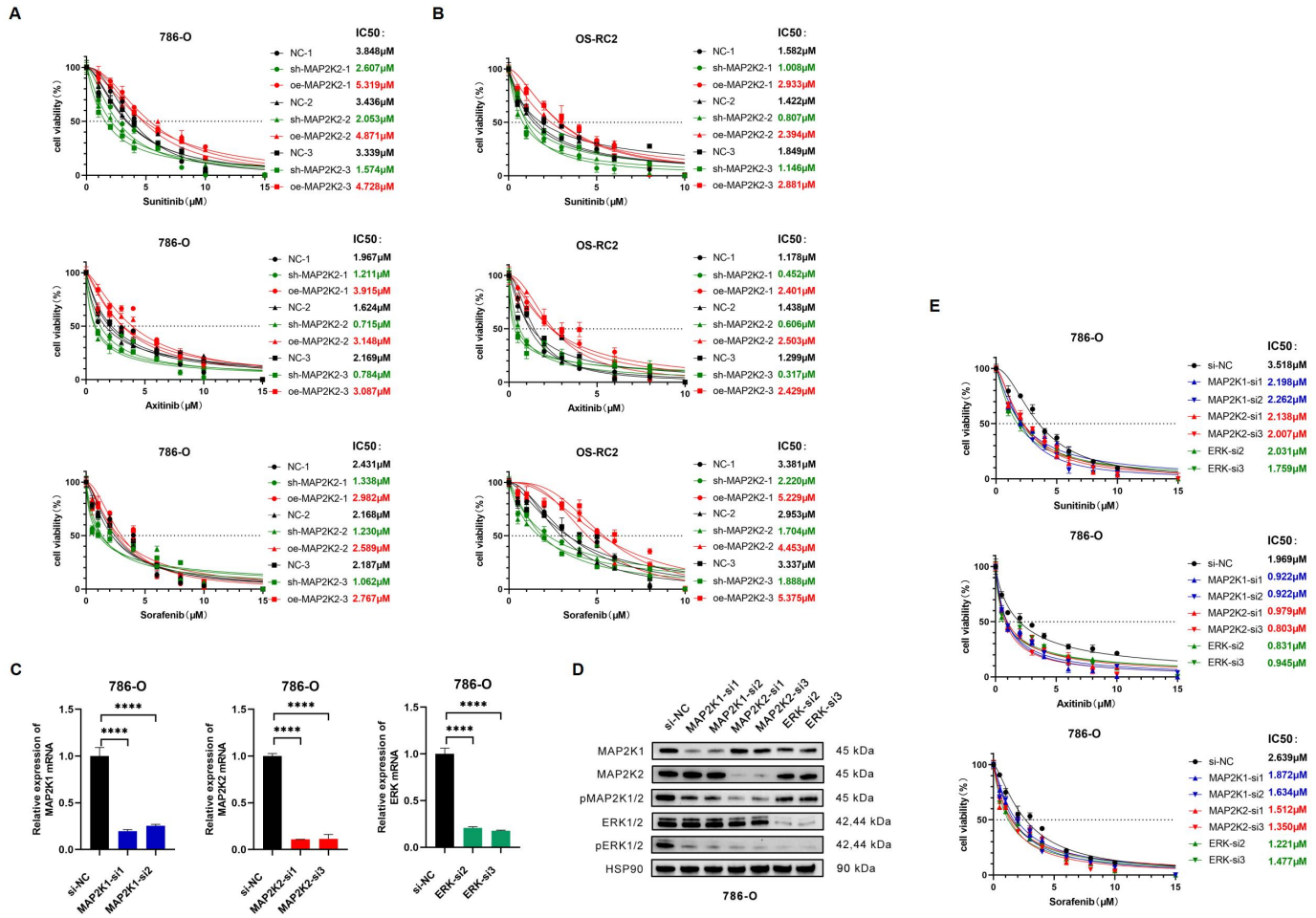
**Supplementary Figure**

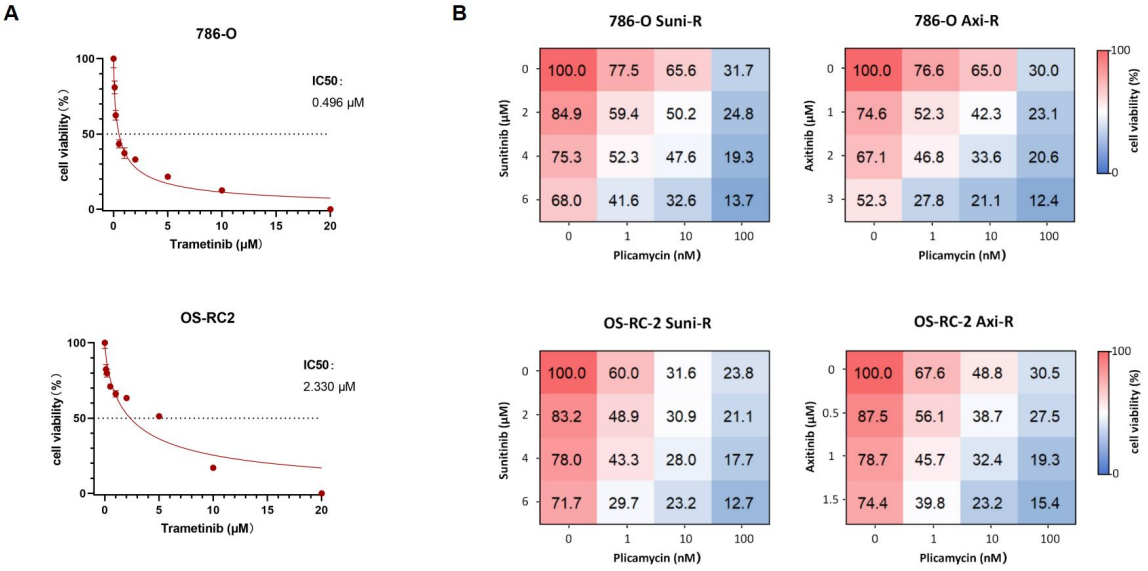
**Supplementary Figure 1.** (A-C) Statistically significant correlations are observed with Fuhrman grade, clinical stage, and distant metastasis ($p < 0.05$). (D, E) No statistically significant differences are found for tumor size and lymph node metastasis.



**Supplementary Figure 2.** (A, B) IC50 curves of Sunitinib, Axitinib, and Sorafenib in 786-O and OS-RC-2 cell lines. Black curves represent NC (negative control) cells, green curves represent cells with MAP2K2 knockdown, and red curves represent cells with MAP2K2 overexpression. Experiments were independently repeated three times, denoted as -1, -2, and -3. (C) Relative mRNA expression levels of MAP2K1, MAP2K2, and ERK in 786-O cells following siRNA-mediated knockdown. Two siRNA sequences were selected for each gene, labeled -si1, -si2, or -si3. (D) Expression levels of MEK/ERK pathway proteins in 786-O cells following siRNA knockdown. (E) IC50 curves of Sunitinib, Axitinib, and Sorafenib in 786-O cells after siRNA-mediated knockdown.



**Supplementary Figure 3.** (A) The IC50 value of Trametinib of 786-O and OS-RC-2 cells. (B) Assessment of cell survival in drug-resistant 786-O and OS-RC-2 cells exposed to varying drug concentrations, with a color gradient from red to blue indicating increasing cytotoxicity.



**Supplementary Table1 sgRNA sequences of 1811 target genes and control genes in the CRISPR/Cas9 library**

| UID | sgRNA_seq | Gene |
|---|---|---|
| 1 | AAAS | TCCCTTATCAGGCGTGATGT |
| 2 | AAAS | CCCAGACGGCAGCAAAATCC |
| 3 | AAAS | GTGGGGTGACCAACCTGCTC |
| 4 | AAAS | GCACTCACCAATTTGTGACT |
| 5 | AAAS | AATTTGCCCAAGTCACAAAT |
| 6 | AAAS | TTTCATTTAGCACCCCAAAA |
| 7 | AAGAB | ACCATTCTTCATCACTACAT |
| 8 | AAGAB | GCCTTGATAGTGTCTCCTCA |
| 9 | AAGAB | AGCAGACATCAATCTATGTG |
| 10 | AAGAB | CAGACCAAGATCATCACCTC |
| 11 | AAGAB | TGGAACAGAAGATCTTATTG |
| 12 | AAGAB | CGCTTTACTCCTGTAGATTC |
| 13 | AANAT | CGCGTCCTCGCACATGAGCG |
| 14 | AANAT | ACCTTCACGCTCGATCTCAA |
| 15 | AANAT | CCTTCATCATCGGCTCGCTC |
| 16 | AANAT | GCCTTTGAGATCGAGCGTGA |
| 17 | AANAT | GACGCCCAAGACGGAGATGA |
| 18 | AANAT | CCGGGCCGCGCTCATGTGCG |
| 19 | ABCB1 | TTGGACTGTCAGCTGCTGTC |
| 20 | ABCB1 | GAAGCTAACCCTTGTGATTT |
| 21 | ABCB1 | CCAAACACCAGCATCATGAG |
| 22 | ABCB1 | CTAGGTGATATCAATGATAC |
| 23 | ABCB1 | TGGACTTCCTCTCATGATGC |
| 24 | ABCB1 | ATCTGGAGGAAGACATGACC |
| 25 | ABCB7 | TCAGCATGTTTCCCGACATC |
| 26 | ABCB7 | TTACTAGATCTCCAACAGTA |
| 27 | ABCB7 | CTGTATTTGGTGCATCACTC |
| 28 | ABCB7 | CACCTTGTTTACTCTACTCA |
| 29 | ABCB7 | AACAAAGCAGATAATGATGC |
| 30 | ABCB7 | GCTGAATTATGAAACTGTGA |
| 31 | ABCC12 | CGTGCGGTAGTTGATGGCCC |
| 32 | ABCC12 | CTGGGCCATCAACTACCGCA |
| 33 | ABCC12 | TGCCGCACTCACCGGCCCTA |
| 34 | ABCC12 | CACCATCACCGGCGTGAGCC |
| 35 | ABCC12 | GATGAGTCATATGTCGACAA |
| 36 | ABCC12 | CCAGAGGACACGCGTGTTGA |
| 37 | ABCC4 | GGCACTTCGTCTTAGTAACA |
| 38 | ABCC4 | CTTCCTCTAATCTCCGTTTA |
| 39 | ABCC4 | TGATGTGAACAAGTTTGATC |
| 40 | ABCC4 | GAAGACCGCTCACAGCACCT |
| 41 | ABCC4 | GAGCAATCATAAAGTGTTAC |
| 42 | ABCC4 | ATGATTGCTCTTGTTAAAGA |
| 43 | ABCG2 | ACATCTCCAGATAATCCACT |
| 44 | ABCG2 | GACAGCTTCCAATGACCTGA |
| 45 | ABCG2 | CGAAGATTTGCCTCCACCTG |
| 46 | ABCG2 | TATTAGATGTCTTAGCTGCA |

| | | |
|---|---|---|
| 47 | ABCG2 | AGCTGTCGCGGGGAAGCCAT |
| 48 | ABCG2 | TACAGTGGGATCATGAAACC |
| 49 | ABHD6 | CCCCTTCCAGGTACTGGCGG |
| 50 | ABHD6 | GCAAGTTAAGAGGATACACC |
| 51 | ABHD6 | AACATGTTTGTGATTGCGGG |
| 52 | ABHD6 | CCTCTTAACTTGCCCATCTA |
| 53 | ABHD6 | GAGCAGGATGGATCTTGATG |
| 54 | ABHD6 | CAGAGAATCCGTGGAGCATG |
| 55 | ACACA | TGCAATTAGATTCGTTGTCA |
| 56 | ACACA | GCAGAATTTGTTACTCGCTT |
| 57 | ACACA | TGGCTTGCACCTAGTAAAGC |
| 58 | ACACA | GAAGACCTTAAAGCCAATGC |
| 59 | ACACA | GATCACTATGTGCCAGTGCC |
| 60 | ACACA | CAACAACAACTATGCAAATG |
| 61 | ACACB | GATCATTACGTCCCCGTCCC |
| 62 | ACACB | GGGTTGGGACCTGTAGCGTC |
| 63 | ACACB | CGTTGTCGCCCAGACGCTAC |
| 64 | ACACB | TTGCGTGAAAGACGTAGATG |
| 65 | ACACB | TACCTGCACGGGGATTCTCT |
| 66 | ACACB | CCCTTGTCATAAACATCTTC |
| 67 | ACADM | GCCAATCGACAACGTGAACC |
| 68 | ACADM | TCCCCCTAATTAGAAGAGCC |
| 69 | ACADM | TGCTCGTAAATTTGCCAGAG |
| 70 | ACADM | ACTGTAGGAGGTCTTGGACT |
| 71 | ACADM | GAAAGCTTACCACAGTTCTC |
| 72 | ACADM | GGGGTTCAGACTGCTATTGA |
| 73 | ACAT1 | TGCTCCATCATTCAGTGTAC |
| 74 | ACAT1 | AATGCCAGTACACTGAATGA |
| 75 | ACAT1 | TCCTACAAGGCAGGCAGTAT |
| 76 | ACAT1 | CCCAATACTGCCTGCCTTGT |
| 77 | ACAT1 | AAGTGCCGCCAGCACAGCCA |
| 78 | ACAT1 | TGTATCAAAACCCACTTTGA |
| 79 | ACBD5 | GAAGAATTGCTGCGTGTCAT |
| 80 | ACBD5 | TAGGGATGCTTGGAGTTCAC |
| 81 | ACBD5 | AGGAGTTCTGATATAACCTC |
| 82 | ACBD5 | TTCTTCAACATATGCAATCA |
| 83 | ACBD5 | TGAAGTTTACTGTGATTCTA |
| 84 | ACBD5 | GATCATGTTGAAGATGTTAC |
| 85 | ACE2 | CAAGTGAACTTTGATAGAAC |
| 86 | ACE2 | ATGAGCACCATCTACAGTAC |
| 87 | ACE2 | TGCTGCTCAGTCCACCATTG |
| 88 | ACE2 | TCAAGTAATAAGCATTCTTG |
| 89 | ACE2 | CACAGTCAAGCTTCAGCTGC |
| 90 | ACE2 | TGTGGACTGTTCCTTTAAAA |
| 91 | ACER2 | TATCGCCGAGTTCTACAACA |
| 92 | ACER2 | CCGCACCGTGTTGTAGAACT |
| 93 | ACER2 | CTACTTAATCTGGACTCTTT |
| 94 | ACER2 | CCATGCAACCCTTAGTTTCT |
| 95 | ACER2 | GCATCTGACCCAAGAAACTA |

| | | |
|---|---|---|
| 96 | ACER2 | ACGAAACAAGCACATGCAGA |
| 97 | ACHE | CCCAGCGACTGATGCGATAC |
| 98 | ACHE | CCACAATGTCGTGTGCCCCG |
| 99 | ACHE | GGCTCAGCAGTACGTTAGTC |
| 100 | ACHE | CCCACAATGGCCCCCGTACA |
| 101 | ACHE | GGCCGCAGACACGCTCGACG |
| 102 | ACHE | GTTCGACCACTACAGCAAGC |
| 103 | ACLY | GACCAGCTGATCAAACGTCG |
| 104 | ACLY | GAGAGCAATTCGAGATTACC |
| 105 | ACLY | TTCCACGACGTTTGATCAGC |
| 106 | ACLY | ACCTACCGATGTGCTCCCGC |
| 107 | ACLY | AACTTCCTCCTCAACGCCAG |
| 108 | ACLY | TTGTGACTTCGTGCTCCTTC |
| 109 | ACOT4 | ATAAGGAATGCTCTCGTAGG |
| 110 | ACOT4 | CCGCGCACGGCAATGCGCAC |
| 111 | ACOT4 | CGCAGCGTAACCCGCTGCTC |
| 112 | ACOT4 | TTATATCCACAATGTCCACG |
| 113 | ACOT4 | TGAAGATCTCCCCAATAACA |
| 114 | ACOT4 | GGATATGTTGTCCATGTTAT |
| 115 | ACOX2 | GCCGAGCTATCAACCGGATG |
| 116 | ACOX2 | TGATAGCTCGGCGCCTGGGT |
| 117 | ACOX2 | AGGCGCTCACCTTAGCAGCC |
| 118 | ACOX2 | CTCCATGACGCCTTCCTGTC |
| 119 | ACOX2 | CTGCCACTCACCGGATCAGG |
| 120 | ACOX2 | TCTGGTTCCAAGCCTCGTGC |
| 121 | ACTB | CAACCGCGAGAAGATGACCC |
| 122 | ACTB | TCCTTCCCAGGGCGTGATGG |
| 123 | ACTB | AGCCATGTACGTTGCTATCC |
| 124 | ACTB | CGTACAGGGATAGCACAGCC |
| 125 | ACTB | CACCTTGATCTTCATTGTGC |
| 126 | ACTB | CTCTCAGGCATGGAGTCCTG |
| 127 | ACTL6A | GTTGAAGGACATAGCCATCG |
| 128 | ACTL6A | TGCCAAGACCTCGTAACCTG |
| 129 | ACTL6A | TCGTTCTACTGGGCTGATTT |
| 130 | ACTL6A | GTACCGAAGCTTGAAAATCC |
| 131 | ACTL6A | TCTCAGGAAGCTGTTCGTGA |
| 132 | ACTL6A | TTACTCACAGTGTGTTATCC |
| 133 | ACTL6B | ACTATGAGCGGGGGCGTCTA |
| 134 | ACTL6B | ATGACCTCCGCTCCATCCCG |
| 135 | ACTL6B | GTCATGTCGCCCCTCAAGAA |
| 136 | ACTL6B | GGCTCCTTCTCAGTCCGCGC |
| 137 | ACTL6B | TCCCCGCACAGATGAGGTGG |
| 138 | ACTL6B | GCAGGGCATTGGTGTCGATG |
| 139 | ACTN4 | GCATGAGCTTGAGCCCGTCT |
| 140 | ACTN4 | GGAGTTGCACCATGCCGTGA |
| 141 | ACTN4 | TGCACATTGACGTTCTTATA |
| 142 | ACTN4 | CAACAATGTGAACAAAGCGC |
| 143 | ACTN4 | ACTCTCATCTTCCCCCGCTC |
| 144 | ACTN4 | CATCCTTAGGTTCGCCATCC |

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|---|---|---|
| 145 | ACTR5 | TGAGCACAGCTACATCGCTG |
| 146 | ACTR5 | AACTGCAAGCGCATCAATCT |
| 147 | ACTR5 | TTACCTGCACATATAGCAGT |
| 148 | ACTR5 | CCAAAGAACTCGATGTGCAG |
| 149 | ACTR5 | TGTCTACCACATCCACCTCG |
| 150 | ACTR5 | CCACTGCACATCGAGTTCTT |
| 151 | ACTR6 | GGAGCTTACAACGCCAAAAT |
| 152 | ACTR6 | TGAGATGACGACCTTAGTGC |
| 153 | ACTR6 | ACTCTTAACCAATCATCTAA |
| 154 | ACTR6 | AGATGTATGCTATGTGTCTC |
| 155 | ACTR6 | TCCCCTTGCAGGATAAATGT |
| 156 | ACTR6 | TGTTAGGCAGCTACATGTTA |
| 157 | ACTR8 | GCGGCCCATCGTGCCCGCGC |
| 158 | ACTR8 | CGCACCTCTTGCAGCGACTC |
| 159 | ACTR8 | CATCACCCTGAGTATTTAGT |
| 160 | ACTR8 | TCTTCTCCTACTAAATACTC |
| 161 | ACTR8 | AAATGGTGGATCAAGCAATA |
| 162 | ACTR8 | CGAACCTGTTCAGGGGACAC |
| 163 | ADA | CAGGCTTGATGGATCCGTCT |
| 164 | ADA | GCTCACTTTGGGCTTGTCGA |
| 165 | ADA | GAACTGCATGTCCACCTAGA |
| 166 | ADA | AGGCATGTAGTAGTCAAACT |
| 167 | ADA | AGCCCCTCTGCTGTGTTAGC |
| 168 | ADA | TTACCTGCCATAGTATAAGA |
| 169 | ADAM8 | CGGCTACACAGAGACCTATA |
| 170 | ADAM8 | CTGGGCGCGATGATGCTGCC |
| 171 | ADAM8 | CCGACCCATACCTGCCCGCG |
| 172 | ADAM8 | AGGACGTAGCTCACCCTCTC |
| 173 | ADAM8 | CCACTCACCTGTTCTTCCGC |
| 174 | ADAM8 | GACCCGGCCATGCGCGGCCT |
| 175 | ADAMTS12 | ACCACCCGCACATCGTTTAC |
| 176 | ADAMTS12 | CTCGGACTGGACCCACCACG |
| 177 | ADAMTS12 | GTACTACAGAATTTCTCACG |
| 178 | ADAMTS12 | TGCCTCCTGTAAACGATGTG |
| 179 | ADAMTS12 | CCCGCCATAGCTCTTGCTTC |
| 180 | ADAMTS12 | CATTCTACTCGAAGAAGAAG |
| 181 | ADAMTS14 | ACACTTGTCATCCGCCTTCA |
| 182 | ADAMTS14 | AAGCCGGACCTTCACCGCCA |
| 183 | ADAMTS14 | GGCGGTGAAGGTCCGGCTTG |
| 184 | ADAMTS14 | CCAGCACTCACCAATGCGGT |
| 185 | ADAMTS14 | ACCTCCTTGTCACAGCCGAC |
| 186 | ADAMTS14 | ACTTCTCCAGTGCCTCAATC |
| 187 | ADCY6 | ACGCGTTGCGCTCGCCACCA |
| 188 | ADCY6 | GCAGTGTTGCCCGAGTGATG |
| 189 | ADCY6 | CCGCAGCCAGCTTGTCAAAC |
| 190 | ADCY6 | CCTGACTTACTTGTCTTTGC |
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| 192 | ADCY6 | GCAACACTGCAGTACCTGAA |
| 193 | ADD1 | GACCAGAGTGAACTCCGAGC |

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|---|---|---|
| 194 | ADD1 | CATGGCACCAGACCTTCGCC |
| 195 | ADD1 | GAATGGTGATTCTCGTGCTG |
| 196 | ADD1 | CCTCTTGCCAATCTCCCCGG |
| 197 | ADD1 | GAAAGCGCCTCCGGGGAGAT |
| 198 | ADD1 | TGAAGTGACTGCATCCAGTT |
| 199 | ADH5 | CTGATAGATCATTGCCACTG |
| 200 | ADH5 | GTGCTCATTGAGATGACCGA |
| 201 | ADH5 | ACTTCAGGTTATCAAGTGCA |
| 202 | ADH5 | AAGATACTAACCTTATCTTC |
| 203 | ADH5 | AGTCGGATTGGCAGTTATCA |
| 204 | ADH5 | ATCGGTGTGGCAAACCGCAG |
| 205 | ADH6 | TCCATACAGGTTGTGGCCAC |
| 206 | ADH6 | GCTGGAATCGTTGAGAGTAT |
| 207 | ADH6 | GATGCAAAGCAGCCATACTC |
| 208 | ADH6 | TGCACCAGGCTTCCAGAGTA |
| 209 | ADH6 | GAGGTACATTCTCCACACTG |
| 210 | ADH6 | ACACTCTTTCTGCCACAGTG |
| 211 | ADM5 | TCCAGTATATGATCTCCGCC |
| 212 | ADM5 | CCTACAGCTATGGGCGCCGC |
| 213 | ADM5 | CCCCTTGGGCGGAGAAGGCG |
| 214 | ADM5 | CTCCTCGCCTTCTCCGCCCA |
| 215 | ADM5 | GGTGGGTCCGGCATACGCCC |
| 216 | ADM5 | CTTCCGCCTCGCGCCACCGG |
| 217 | ADRM1 | CGCCTAGCGCAGAGAGTTCG |
| 218 | ADRM1 | CGCTTGAACTCACAGTCGTC |
| 219 | ADRM1 | ACATCCGCGTTGGCGAGGAT |
| 220 | ADRM1 | ACCAGCCCTTTCCGCTTATC |
| 221 | ADRM1 | CCACCGTGACTCCGGATAAG |
| 222 | ADRM1 | CACGAACTCTCTGCGCTAGG |
| 223 | AFF4 | GGGCAACTTACAACTTTGTA |
| 224 | AFF4 | GCAACATGAACCGTGAAGAC |
| 225 | AFF4 | GAGTCTCAGCAGTCCAATTT |
| 226 | AFF4 | TTGTTCTCCAGTGCCAAAAT |
| 227 | AFF4 | TCTTTCAAGGCATCAGCTTC |
| 228 | AFF4 | CTTTCATACGCAGCACATTC |
| 229 | AFG3L2 | ATGGGCGGACTCTTCAGTGT |
| 230 | AFG3L2 | TGAAGAGTCCGCCCATCCCT |
| 231 | AFG3L2 | AGTTTCCAGATTCCGTTCAA |
| 232 | AFG3L2 | GTCTACATTGCTGAAAGTGA |
| 233 | AFG3L2 | TTCTCTCCCATAACTTCTTT |
| 234 | AFG3L2 | TAGTGAACCTAAAGAAGTTA |
| 235 | AFM | AATTTCTTACCTATATCCCG |
| 236 | AFM | TAACCCTGCCCACACAACCT |
| 237 | AFM | TGCATTTGCTCAGTATGTTC |
| 238 | AFM | ATACTGAGCAAATGCAATGA |
| 239 | AFM | ATGAAACTACTAAAACTTAC |
| 240 | AFM | AGAATACAAAGACAGATGTA |
| 241 | AGAP5 | TAGCCTTTCTGCCAATCCAG |
| 242 | AGAP5 | CATCTGTTTGAGAGTTCCTC |

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|---|---|---|
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| 246 | AGAP5 | TATTGTGCTTGCCTCTGGAT |
| 247 | AGAP9 | CATCTGTTTGAGAGTTCCTC |
| 248 | AGAP9 | TAACCTTTCTGCCAATCCAG |
| 249 | AGAP9 | TAACTCTTCTGCCAATCCAG |
| 250 | AGAP9 | TATTGTGCTTGCCTCTGGAT |
| 251 | AGAP9 | TTGTCATTGTAAGATAATGC |
| 252 | AGAP9 | CAGAGGAACTCTCAAACAGA |
| 253 | AGGF1 | TCTATAGTATTTCCACTAGT |
| 254 | AGGF1 | GACGAAGCCATTACCAGTGA |
| 255 | AGGF1 | AGCTAATGATGAGCCTTCTA |
| 256 | AGGF1 | CTCTATTATGATCCTTCCAC |
| 257 | AGGF1 | ACAGAAGATACCTCCTTAGA |
| 258 | AGGF1 | AGATTCTTCTGCAACAAATG |
| 259 | AGO4 | GTTAACATACGTTTGATGAC |
| 260 | AGO4 | CCAGCACCAATGCTGCAATA |
| 261 | AGO4 | GTCTAGTCACATTACAAACT |
| 262 | AGO4 | TTAGGTGAAGAGCAACAGTA |
| 263 | AGO4 | ACCGGGTCCCAGCGCCTCCA |
| 264 | AGO4 | CGCCGCCGCCATGGAGGCGC |
| 265 | AGPS | TACCTTAGGTACCCTCTTAG |
| 266 | AGPS | CTTGGCCATAAAACTATATC |
| 267 | AGPS | GATCGAGTATTTAGAGCTCA |
| 268 | AGPS | AGGTGTATCACTAGGATTTA |
| 269 | AGPS | AAATACCCTTGGAGTAAATG |
| 270 | AGPS | CTAGGCAAGAAGTTATGAAA |
| 271 | AGTR1 | CTACAAGCATTGTGCGTCGA |
| 272 | AGTR1 | TCTCAGCATTGATCGATACC |
| 273 | AGTR1 | TCAGGCCCAGCCCTATCGGG |
| 274 | AGTR1 | GTAGAAACACACTAGCGTAC |
| 275 | AGTR1 | ACACAGCTATGGAATACCGC |
| 276 | AGTR1 | TCATTGGGTGAACAATAGCC |
| 277 | AGXT2 | AGACGGTGCTTGTATGCCAC |
| 278 | AGXT2 | TATGTTGTTTGAGTGCGCCC |
| 279 | AGXT2 | AGGATACTCACGGGTGGCAA |
| 280 | AGXT2 | CCTTGGCTACAACCGTGTCC |
| 281 | AGXT2 | AAAAGCAGCTCGGCCGCCTG |
| 282 | AGXT2 | TGGCTCAGAAGCCAATGAGC |
| 283 | AHNAK2 | CGGATGAGGGCATTCGACCA |
| 284 | AHNAK2 | GGTCGAATGCCCTCATCCGC |
| 285 | AHNAK2 | TTTCAGGATGAGTCGTCCAG |
| 286 | AHNAK2 | GATGTGCGACTGCTTCCACA |
| 287 | AHNAK2 | TCCTGGTGGAAGCGAGATTC |
| 288 | AHNAK2 | GAGGGGCGCACCGCTGCCGG |
| 289 | AK1 | ATTGTCGTCCACACGCCCGC |
| 290 | AK1 | CTCCACGTTTCAAGAGCCGC |
| 291 | AK1 | AGTATTGACTTTGGCCACCA |

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|---|---|---|
| 292 | AK1 | TACCCGCGGGAGGTGCAGCA |
| 293 | AK1 | ACCCACCACAAAGATGATCT |
| 294 | AK1 | GAAAACCAAGATCATCTTTG |
| 295 | AK3 | CATCCAACAGCCAGCTATAC |
| 296 | AK3 | AGATGATGTCATGACTCGGC |
| 297 | AK3 | AACAACGCCTTACTGCTCGC |
| 298 | AK3 | TAGGGCATTGATGACCTGAC |
| 299 | AK3 | AAACTCACTGGTAATATTCC |
| 300 | AK3 | TGAATTCAATGTTATAGACT |
| 301 | AKAP1 | ACGGTCATCTGTGCCGCCCC |
| 302 | AKAP1 | CTACGAGGAGACCAACGAAG |
| 303 | AKAP1 | AGAAGGTCGACCTCATCATC |
| 304 | AKAP1 | GTGTGTGCTGCTGCACGAAC |
| 305 | AKAP1 | CATCACCGTGGAGGTCATTG |
| 306 | AKAP1 | CCTCGATCTCCCAGATGATG |
| 307 | AKAP2 | TTCTATTCACCCCCGCATAA |
| 308 | AKAP2 | TCAACAAGCCATAGCCGAGC |
| 309 | AKAP2 | CTTTCTTCGATTAACCCGTG |
| 310 | AKAP2 | TAATCGAAGAAAGAGCGCAC |
| 311 | AKAP2 | GCCTCTTCAGGGGCTAAGTC |
| 312 | AKAP2 | TTCTAAGTTACTGTCTTGCA |
| 313 | AKAP6 | CCTGAGCTTATCCGAAGTGT |
| 314 | AKAP6 | CCATTCCTAGTGACGTGACT |
| 315 | AKAP6 | TTACTCTGTCAACGTGATAG |
| 316 | AKAP6 | CCAGCACTGAGACTCGAAGC |
| 317 | AKAP6 | GTGTCTCCAGATACAGTTTA |
| 318 | AKAP6 | ACTGTATCTGGAGACACACT |
| 319 | AKAP8L | ATCTAAGCGCTGGTTAATTC |
| 320 | AKAP8L | TGTTGTCCGAGCAGTCCGTG |
| 321 | AKAP8L | AATTAACCAGCGCTTAGATA |
| 322 | AKAP8L | CGAGTATGTCGACTGCAAAG |
| 323 | AKAP8L | CACTTTGCAGTCGACATACT |
| 324 | AKAP8L | AGATAGCAAAGCCACCCGCA |
| 325 | AKAP9 | TCCGACTCATCTAGAGATGA |
| 326 | AKAP9 | AGAAATAACCAGTCATGAGC |
| 327 | AKAP9 | ATAATGAGAACTCTACATAG |
| 328 | AKAP9 | TCCATCATCTCTAGATGAGT |
| 329 | AKAP9 | TGAACTGCAGTCATCTGCTG |
| 330 | AKAP9 | AGCAGATGACTGCAGTTCAG |
| 331 | AKR1C1 | GCCAGCTTCAATTGCCAATT |
| 332 | AKR1C1 | ACCAAATTGGCAATTGAAGC |
| 333 | AKR1C1 | CTTATTACCATGGTTCTTCT |
| 334 | AKR1C1 | GATCCCACCGAGAAGAACCA |
| 335 | AKR1C1 | CTGCCTACCTTTACAGACAC |
| 336 | AKR1C1 | CAATTCCCATCGACCAGAGT |
| 337 | AKT1 | TGTGCCGCAAAAGGTCTTCA |
| 338 | AKT1 | TCACGTTGGTCCACATCCTG |
| 339 | AKT1 | GCAGGATGTGGACCAACGTG |
| 340 | AKT1 | GCCCGTCCTTGTCCAGCATG |

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|---|---|---|
| 341 | AKT1 | GCCTGGAGTTCTGCAGGACG |
| 342 | AKT1 | ACCGCGTCCTGCAGAACTCC |
| 343 | AKT1S1 | CGCGCATGCTCGCCGCGATG |
| 344 | AKT1S1 | AACGGCGCGCTGCCTCCGCC |
| 345 | AKT1S1 | TGTGGGCCAGTGCGATGTCG |
| 346 | AKT1S1 | AAGTCGCTGGTGTTAAGCCG |
| 347 | AKT1S1 | CGGCGGGGGTCTCCTCGCTC |
| 348 | AKT1S1 | TCAGACCCCGAGAGTACAGA |
| 349 | AKT2 | TCTCGTCTGGAGAATCCACG |
| 350 | AKT2 | CATCGAGAGGACCTTCCACG |
| 351 | AKT2 | TTAAACAACTTCTCCGTAGC |
| 352 | AKT2 | TCGCCAACAGCCTCAAGCAG |
| 353 | AKT2 | CAATGATGACTTCCTTCCGC |
| 354 | AKT2 | GACCCCATGGACTACAAGTG |
| 355 | AKT3 | AGAATGGACAGAAGCTATCC |
| 356 | AKT3 | TAAGGTAAATCCACATCTTG |
| 357 | AKT3 | TTGCCACTGAAAAGTTGTTG |
| 358 | AKT3 | GATGTTACCATTGTGAAAGA |
| 359 | AKT3 | GCAGTCTGTCTGCTACAGCC |
| 360 | AKT3 | AACCCAACCTTCTTTCACAA |
| 361 | ALDH1A3 | CGTCCCGGAGCAATCTGAAG |
| 362 | ALDH1A3 | AGCGTCCGCACACACGATGC |
| 363 | ALDH1A3 | CATATTTGCTCCCGAGTTGA |
| 364 | ALDH1A3 | TACTCACGGCCAAGGTGGCG |
| 365 | ALDH1A3 | CGCTCAGCCCGACGTGGACA |
| 366 | ALDH1A3 | CTACATGTAACCCTTCAACT |
| 367 | ALDH3A2 | GTCCGACAGGCGTTCCTGTC |
| 368 | ALDH3A2 | CGTGCGTACCTTGCACAGGT |
| 369 | ALDH3A2 | TGGTGCTGATAATCGGAGCT |
| 370 | ALDH3A2 | TCAACATCGGTAAGTACTGT |
| 371 | ALDH3A2 | CGATGTTGATCCTAAAACCA |
| 372 | ALDH3A2 | TGGCTGAATGGTGAGAACGA |
| 373 | ALDH7A1 | CATTAGGTTATGGATCGCCC |
| 374 | ALDH7A1 | CCTTTCTAGGATAATAGCCA |
| 375 | ALDH7A1 | GCAGAATCTTTCGCTGGCTT |
| 376 | ALDH7A1 | CTGGAGGACAACAAGCTGCC |
| 377 | ALDH7A1 | CCAAGACCTGTCACAATTGT |
| 378 | ALDH7A1 | TAGCATCTTTACCAAAGATC |
| 379 | ALDOA | TGTGCGGCGCAGCGCTGTGA |
| 380 | ALDOA | ACGGAGCTGACTTCGCCAAG |
| 381 | ALDOA | CCTTGCCAGGTGCCACGATG |
| 382 | ALDOA | CTTCAGCACACAACGCCACT |
| 383 | ALDOA | CCAACAGGTAGACAAGGGCG |
| 384 | ALDOA | GGTCAGTGCTGGATATTGGT |
| 385 | ALDOB | GGTACCTATTGTTGAACCAG |
| 386 | ALDOB | TCCATCCAGCCTCGCTATCC |
| 387 | ALDOB | TATCCACAGTTAGACCAAGG |
| 388 | ALDOB | ATTACCTCTGGTTCAACAAT |
| 389 | ALDOB | TAGCGAGGCTGGATGGACAC |

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|---|---|---|
| 390 | ALDOB | AATATCCTTACCTTGAATGG |
| 391 | ALDOC | GAACCGCCGGCTGTACCGCC |
| 392 | ALDOC | CCACGACGATGCCCTTATCC |
| 393 | ALDOC | CACGTTGGCGTTCTCCAGAA |
| 394 | ALDOC | TCCCATCAAGTATACCCCAG |
| 395 | ALDOC | CTCCTCTGGGGTATACTTGA |
| 396 | ALDOC | TTTCAGCACACAGCGCCACT |
| 397 | ALYREF | GGGACTCACTCTCGCATTAT |
| 398 | ALYREF | AGTCTCAGACGCCGATATTC |
| 399 | ALYREF | CGTCACAGATTGACGCACAG |
| 400 | ALYREF | CAAAACAACTTCCCGACAAG |
| 401 | ALYREF | TTCCTTGCTAGCGTAAACAG |
| 402 | ALYREF | GACGCCGTTGTACTGCTTCA |
| 403 | AMH | TCCGACCGCAACCCGCGCTA |
| 404 | AMH | AGACGCTCACGCGCCTGGTG |
| 405 | AMH | ACGACCACCGCTGCTTCACA |
| 406 | AMH | GTTAGCGGTGGACCGCCCTG |
| 407 | AMH | CCACCGCTAACACCAGGTAG |
| 408 | AMH | ACTCCCGGCTGAGTACCGCC |
| 409 | AMOT | CATATGCCTCCGAGACGCGC |
| 410 | AMOT | GACAGAAATCCAGCGCGTCT |
| 411 | AMOT | AGATCCTCTCAGACGAGAAC |
| 412 | AMOT | AGAGGATCTCAACCATCTGC |
| 413 | AMOT | CTTCTCTGCAAGCTGCTTGT |
| 414 | AMOT | CAACAAGCAGCTTGCAGAGA |
| 415 | ANK2 | TGGACTCAACGCTCTCCATC |
| 416 | ANK2 | CGCTCTTCACATTGCATCTT |
| 417 | ANK2 | CAATATTAATGCACAGTCTC |
| 418 | ANK2 | AATGACCACCATGTTGCAAA |
| 419 | ANK2 | CTTAGTGGCAGAATCCACAG |
| 420 | ANK2 | CTGAGACTGTGCATTAATAT |
| 421 | ANK3 | TGGTTTCACGCCATTGTATA |
| 422 | ANK3 | AGCATTGCACATCGCATCTT |
| 423 | ANK3 | TCCTGGGCTGCCATATACAA |
| 424 | ANK3 | TTATTCACGAAGCTCTAGAA |
| 425 | ANK3 | CTGAGATTGTGCATTGACAT |
| 426 | ANK3 | GAAGAAACTTGACAACTTCC |
| 427 | ANKFN1 | ACGCAGCCAAACGCCTGTAC |
| 428 | ANKFN1 | GTACAGGCGTTTGGCTGCGT |
| 429 | ANKFN1 | GGTGTCAAGCCCTCGCTGTT |
| 430 | ANKFN1 | GATTCGCTTGCTTTGCACAG |
| 431 | ANKFN1 | CCTCAACACACCTAACAGCG |
| 432 | ANKFN1 | TTACCAGTTTATGCTGTTCG |
| 433 | ANKRD13B | TGGAGATTGACCACGACCGC |
| 434 | ANKRD13B | CGCACGGCGCAGACGTGGGC |
| 435 | ANKRD13B | CCACGTCTGCGCCGTGCGCC |
| 436 | ANKRD13B | TGCAGCTGGTGCTTCGGTAC |
| 437 | ANKRD13B | TCTGGCAGACACAAGCGCCG |
| 438 | ANKRD13B | ACTACCAGCGGGTGGTGAAG |

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|---|---|---|
| 439 | ANKRD30A | CACATCTACGAGATTTATAT |
| 440 | ANKRD30A | ATAAATCTCGTAGATGTGTA |
| 441 | ANKRD30A | GTCTTTGCTGCAGATATATG |
| 442 | ANKRD30A | GAAATGTTACTACTTCCTCA |
| 443 | ANKRD30A | GAACATTATGCTGTTACTTG |
| 444 | ANKRD30A | ATGCAGTTAATAAGTATAAA |
| 445 | ANKS4B | CGAAAGATTTAGATCTCGCT |
| 446 | ANKS4B | GAATCCATTCTCAATCGTCC |
| 447 | ANKS4B | CACATTCGGGTCACTATCTA |
| 448 | ANKS4B | CAAGCGAGATCTAAATCTTT |
| 449 | ANKS4B | TGTGGTCGATGCCACGCCCC |
| 450 | ANKS4B | GATAGTGACCCGAATGTGCC |
| 451 | ANKZF1 | GAGAAGTTGAGCCGACCCCC |
| 452 | ANKZF1 | GTCTTCTGATCCCGAGATGC |
| 453 | ANKZF1 | GGGAACATTATAAGCTTGAC |
| 454 | ANKZF1 | CATGAGCACCACGCAGTCTC |
| 455 | ANKZF1 | TAACCTAAAGCAACGTCTCA |
| 456 | ANKZF1 | CTACAGAACCTGCAAAGTAG |
| 457 | ANO4 | CATCATCTGAAGTACTAGTC |
| 458 | ANO4 | AGAGAATCGTCATCTTTGCA |
| 459 | ANO4 | ATCACCTGGGTGGAAGACTT |
| 460 | ANO4 | AAAATGGAGGCAAGCTCTTC |
| 461 | ANO4 | GAAAGAAACATTAGAGCAGA |
| 462 | ANO4 | CCATTTGATTTGTTTCTTTC |
| 463 | ANP32B | ACAGGTTCGAGAACTTGTCT |
| 464 | ANP32B | GGACGACGATGAAGTCAGTG |
| 465 | ANP32B | CATCTGAGTCAGGTGCTTCC |
| 466 | ANP32B | TGGCTATGACCGAGAGGACC |
| 467 | ANP32B | GTTACTTACCAAAGGTTCCA |
| 468 | ANP32B | CAAGCTGCCTAAATTGAAAA |
| 469 | ANP32E | TCTCAGTACAGTAGAAGCTC |
| 470 | ANP32E | CTTACCTACCTCAATCTGAG |
| 471 | ANP32E | TTGTGATCTCACAGTTAAAC |
| 472 | ANP32E | TCAGGAGGATAATGAAGCGC |
| 473 | ANP32E | ATTTCTGAGTATGGCTAATG |
| 474 | ANP32E | GGAAAATGAAGCTGGTCCAC |
| 475 | ANXA8 | CCACTCACCGATCCCCTTCA |
| 476 | ANXA8 | TCTCTTGCAGATTGAACAGG |
| 477 | ANXA8 | CTTGCCGAACTGAGCCTTGA |
| 478 | ANXA8 | CCCTGCAGGGACCAACGAGC |
| 479 | ANXA8 | CATGGCGTCATGCAGCTCCT |
| 480 | ANXA8 | ACCTTGAAGTCTGAGCTCAG |
| 481 | AOX1 | CCTCTTCCAGTTCGACTCAC |
| 482 | AOX1 | TGCACGGTACCTTATCCTCT |
| 483 | AOX1 | GCTGCCGTCACCACAGTAGA |
| 484 | AOX1 | CACCTGAACAGGATGAATTC |
| 485 | AOX1 | ATACGCTTCTTCCTCAAATA |
| 486 | AOX1 | CAATGCTGTTGCCTTATTTG |
| 487 | AP1G2 | TCTCAAAGTGTTTGAGCGTG |

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|---|---|---|
| 488 | AP1G2 | CTGAGGCACAGTCAGCCCGT |
| 489 | AP1G2 | TTGCATCATGGCTCGCACAT |
| 490 | AP1G2 | CAGAATCCTCAATCCTAACA |
| 491 | AP1G2 | CCTGGGGGCCATGCTTCTAT |
| 492 | AP1G2 | CACCCTCTTGTCTGTGAATC |
| 493 | APBA2 | CAAAGATGATCCCGTCGATG |
| 494 | APBA2 | CATCAGAATGATGCAAGCGC |
| 495 | APBA2 | GGAGGCGCCGGTGTTCCCGT |
| 496 | APBA2 | GAACGACTGCCATGGCCCAC |
| 497 | APBA2 | CAGCAGCGCTCTGATCTCAA |
| 498 | APBA2 | TTTCCAGGTTTGCAATGGTC |
| 499 | APC | GGATCTGTATCAAGCCGTTC |
| 500 | APC | GATTTATTAGAGCGTCTTAA |
| 501 | APC | AAAATGTCCCTCCGTTCTTA |
| 502 | APC | GAAGTACTTAAACAACTACA |
| 503 | APC | TGATCTTGACAAAGAAGAAA |
| 504 | APC | AGAGTGCAGTCCTGTTCCTA |
| 505 | APCDD1L | ACCTTCACCGTGTATGCCGC |
| 506 | APCDD1L | CGTGCCCCTGGTGTAGCGGC |
| 507 | APCDD1L | AGGGGTCCTCGTAGTAGAAC |
| 508 | APCDD1L | ATCCTGCCTCCACGCCTTAA |
| 509 | APCDD1L | GCGGGTCTGGTTGAGGCGCC |
| 510 | APCDD1L | GCTCCCCTACGCTTGCGTCC |
| 511 | APOM | ACATGCGGATGGTAGCACGA |
| 512 | APOM | TGGATCTACCACCTGACTGA |
| 513 | APOM | AAGCCTTCTTATTGACTCCT |
| 514 | APOM | AACCCCTTACCTTGATTCCT |
| 515 | APOM | CACTGTAGAGGAGAAAGCGC |
| 516 | APOM | TCATTCAGCATGATTCCACC |
| 517 | APRT | CGCCTGCGATGTAGTCGATG |
| 518 | APRT | GGCCGCATCGACTACATCGC |
| 519 | APRT | ACGACGACCACCCTCTGTCC |
| 520 | APRT | GCTGCGTGCTCATCCGAAAG |
| 521 | APRT | AGGACAGAGGGTGGTCGTCG |
| 522 | APRT | CTGACAGGCCTAGACTCCCG |
| 523 | ARAF | TGTGGTCTACCGACTCATCA |
| 524 | ARAF | CGTAGACACTCATGCCATCC |
| 525 | ARAF | ACGGAAGACCTTCTTCAGCC |
| 526 | ARAF | CTGGGCTCACTGTTGGCGGT |
| 527 | ARAF | GGCCAGAGTTTCAGCACTGA |
| 528 | ARAF | CACCATCAGTGCTGAAACTC |
| 529 | ARHGAP5 | CTCTTAGGGTTATGTACCGA |
| 530 | ARHGAP5 | CTTGCTGCTTCCAATAGTTC |
| 531 | ARHGAP5 | ACGTGATAACACATCTAAAC |
| 532 | ARHGAP5 | CTTTCCCAATTTCTACGTGT |
| 533 | ARHGAP5 | ATCCACCAACACGTAGAAAT |
| 534 | ARHGAP5 | ATTCAAAAGCAGTTTGATCA |
| 535 | ARHGDIG | GTCTGCACCACACCTACCGC |
| 536 | ARHGDIG | GCCCCGGAGCCTGTTCCGAC |

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|---|---|---|
| 537 | ARHGDIG | ATGAGGCTGTGCCCGAGTAC |
| 538 | ARHGDIG | CAAGTACAAGCGGGTGCTGC |
| 539 | ARHGDIG | GGCTCCGGGGCCCGTCGTCA |
| 540 | ARHGDIG | GTCCACAGGGAGATTGTCAG |
| 541 | ARHGEF1 | CTGTCTGCATGCCGACATGC |
| 542 | ARHGEF1 | GAGATGGAAGACTTCGCCCG |
| 543 | ARHGEF1 | CTGGTTCCCGTCAGCATCAT |
| 544 | ARHGEF1 | CTCAGCCCCGATGATGCTGA |
| 545 | ARHGEF1 | GCGGCGCCCAGCCCACCTCA |
| 546 | ARHGEF1 | GTGGCCCTGCAGTTTGAGCC |
| 547 | ARID1A | GCGGTACCCGATGACCATGC |
| 548 | ARID1A | ATGGTCATCGGGTACCGCTG |
| 549 | ARID1A | CCCCTCAATGACCTCCAGTA |
| 550 | ARID1A | TTCAATAGATGACCTCCCCA |
| 551 | ARID1A | TGAGCGAGACTGAGCAACAC |
| 552 | ARID1A | AATACTCACAGGCAAGCTGG |
| 553 | ARID2 | TGGCCCTGCACTTGTACAGC |
| 554 | ARID2 | AGCTGTGGCTTTGGATTGCC |
| 555 | ARID2 | TACCCGACACACTGTGTTGC |
| 556 | ARID2 | AGACACATGAAGTTCTGTCC |
| 557 | ARID2 | AGGTTTCTGAGAAGAATCAG |
| 558 | ARID2 | CTTTAAAACAGTATTACTTG |
| 559 | ARID4A | TCGGTACTTGGCACTGACAT |
| 560 | ARID4A | CTCTTAAAGGACCCTTTACT |
| 561 | ARID4A | GATGTCAGTGCCAAGTACCG |
| 562 | ARID4A | GGTACAAGATGACCAAGTAA |
| 563 | ARID4A | GTGTGGTATTATCCTGTTTC |
| 564 | ARID4A | TGAGCCTGCCTACCTGACAG |
| 565 | ARID5B | GGATGCGTTTCAGCATCGAG |
| 566 | ARID5B | CAAAGGTGTCCCGACAGTAC |
| 567 | ARID5B | GCTATGCAAATCGGATCCTT |
| 568 | ARID5B | CAGAATGTACCCACTTGACC |
| 569 | ARID5B | CAGAAATAGCGACCATGGCG |
| 570 | ARID5B | AGGCAGTCAACCCTAAACAG |
| 571 | ARL6IP1 | TCCTCCGATGGGAAAGAGCC |
| 572 | ARL6IP1 | CTGCTTCTCACCTACCTGAT |
| 573 | ARL6IP1 | CCACCCAAGCAACCGCAGCA |
| 574 | ARL6IP1 | CTAGATCCATCTGTTCTGTC |
| 575 | ARL6IP1 | GAAACCAGGCTCTTTCCCAT |
| 576 | ARL6IP1 | GCACAAAAACATAACAAAAC |
| 577 | ARNT | GTCGCCGCTTAATAGCCCTC |
| 578 | ARNT | TGATCAGATGTCTAACGATA |
| 579 | ARNT | GACATCAGATGTACCATCAC |
| 580 | ARNT | CTCAGCCTATTCACAGAAAC |
| 581 | ARNT | TGAATAGGCTGAGCTTTGTG |
| 582 | ARNT | GTGGAGGAGCCATTGTCCAG |
| 583 | ARNT2 | CGCGGCGGTCTTTCATCTGC |
| 584 | ARNT2 | CCCGGAGGGTTGACCGCCGC |
| 585 | ARNT2 | CTCTCTCTTAGGCCGGATCT |

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|---|---|---|
| 586 | ARNT2 | TCCGAGCAAGATGGCAACCC |
| 587 | ARNT2 | TGGTTATTCTGTTTAGAGGA |
| 588 | ARNT2 | TAGGTGTGGAAATGCTCCTT |
| 589 | ARSF | GGAAGATACCCCATCCGATC |
| 590 | ARSF | AGTTTGCGCACCTGATCGGA |
| 591 | ARSF | CAAAATCTTGCAGTCCCCGC |
| 592 | ARSF | CATCTAGGTATGGTTTCTAG |
| 593 | ARSF | ACCATGATTAGGACAATATT |
| 594 | ARSF | GCCTAATATTGTCCTAATCA |
| 595 | AS3MT | CGCTGGGTCAGACCTACTAC |
| 596 | AS3MT | TCGTGACGCTGAGATACAGA |
| 597 | AS3MT | CTTCAGCACCTGCCCGTAGT |
| 598 | AS3MT | TGAAGCACTTGTTGTTTATC |
| 599 | AS3MT | TGATAAACAACAAGTGCTTC |
| 600 | AS3MT | TTGAACTGCCAGAAGAAATC |
| 601 | ASAH1 | TTGCGTCGCCTTAGTCCTCC |
| 602 | ASAH1 | GGACTAAGGCGACGCAACTC |
| 603 | ASAH1 | GTGAAAAGCGCGCTGAGACT |
| 604 | ASAH1 | AGAAAGCTCGCGGGTCCCAC |
| 605 | ASAH1 | TTTACTCACGTTGGTCCTGA |
| 606 | ASAH1 | GTTCCTCACTAGAACAGTTC |
| 607 | ASB8 | CTATGCCGTGCGCCGTAGCC |
| 608 | ASB8 | CCGGCTATTCTAAAAGTAAC |
| 609 | ASB8 | CTTCCCACATGATAATGTAG |
| 610 | ASB8 | GTCAGCATCTGACACCATAC |
| 611 | ASB8 | CCTTGATGAGTTCCAGTATG |
| 612 | ASB8 | GCAGATGTGAACTGCACTCA |
| 613 | ASCC1 | AGAATTAGTTGATCGAGTGC |
| 614 | ASCC1 | CTCCACCTCGTAGGCATCAC |
| 615 | ASCC1 | TTGAACACATCAAACGACTG |
| 616 | ASCC1 | AAAGTAGACCGGAATCCTTG |
| 617 | ASCC1 | GTAGCATCTCACATGTCTGC |
| 618 | ASCC1 | CTGGACTAATAGTGAAAGAG |
| 619 | ASF1A | GATCACCTTCGAGTGCATCG |
| 620 | ASF1A | CTAATTACTTGTACCTATCG |
| 621 | ASF1A | AATAAATTCTTGTCCTCGAT |
| 622 | ASF1A | GTGGTCACATGCAGTCCATG |
| 623 | ASF1A | CAGGTCCTCGATGCACTCGA |
| 624 | ASF1A | TCACAAGATTCCACATTAAT |
| 625 | ASF1B | TGTTGACGTAGTAGCCCACT |
| 626 | ASF1B | GCGGGTCACCCGGGGGTTCG |
| 627 | ASF1B | CCAGCTCCAGCGGAACATCT |
| 628 | ASF1B | CGAGGCGATGGCCAAGGTGT |
| 629 | ASF1B | CTCCTGTCCATGGTAGGTGC |
| 630 | ASF1B | CACGTTCAGCACCGACACCT |
| 631 | ASIC1 | CGTGAGTTCTACGACCGAGC |
| 632 | ASIC1 | GACGAGACGTCCTTCGAAGC |
| 633 | ASIC1 | CTTCAGAGACAGCCGCTCGT |
| 634 | ASIC1 | GGCAGCCACCTCGTCGAGCT |

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|---|---|---|
| 635 | ASIC1 | GTAGAACTCACGCATGTTGA |
| 636 | ASIC1 | ACCTCCTTTCATCGACCAGC |
| 637 | ASIC5 | GGTAACCATCCGCCAAGTGA |
| 638 | ASIC5 | TCAAACTTCTTTCGCTCAGT |
| 639 | ASIC5 | ATCGTTACCTTTGGGCTACA |
| 640 | ASIC5 | TCCCAGCATCAACGAAACCA |
| 641 | ASIC5 | GTCCATTGAGGTTCAATATG |
| 642 | ASIC5 | TCACCAAAACTTCAGCATTG |
| 643 | ASXL2 | TCAGTTCAAGACCCGACATG |
| 644 | ASXL2 | CACCGCGGGAAAAGCAGCGC |
| 645 | ASXL2 | GGGGTGAAAGAGCTGTCAGA |
| 646 | ASXL2 | GACAGCTCTTTCACCCCATC |
| 647 | ASXL2 | CTTCAAGTTATCCAGAGAGA |
| 648 | ASXL2 | AAGAATTTCTTTATGACTCA |
| 649 | ATAT1 | CATGAGTCTGTGCAACGCCA |
| 650 | ATAT1 | CTCCTATCACTAGTGCATCA |
| 651 | ATAT1 | ATCCTTGATGCACTAGTGAT |
| 652 | ATAT1 | TATGACCATTATAGATGAAC |
| 653 | ATAT1 | TCTCTCTTAGGATGATCGTG |
| 654 | ATAT1 | CTTGCCCAGTTCATCTATAA |
| 655 | ATG4B | TCCTGTCGATGAATGCGTTG |
| 656 | ATG4B | TCCTCAACGCATTCATCGAC |
| 657 | ATG4B | CTCTGACCTACGACACTCTC |
| 658 | ATG4B | CTGAGACCTCAGAGCCCGTT |
| 659 | ATG4B | ACTCACCTCGGCCTAGGTGC |
| 660 | ATG4B | GGACGAGATCTTGTCTGATG |
| 661 | ATM | CCAAGGCTATTCAGTGTGCG |
| 662 | ATM | TGATAGAGCTACAGAACGAA |
| 663 | ATM | CCTCGCACACTGAATAGCCT |
| 664 | ATM | CTCTATCATGTTCTAGTTGA |
| 665 | ATM | AAACAATTAAACATCTAGAT |
| 666 | ATM | TCTAGATGTTTAATTGTTTC |
| 667 | ATP1B1 | GTCCTTCCCGTTCAGTGCAC |
| 668 | ATP1B1 | ATAAAGCTCAACCGAGTTCT |
| 669 | ATP1B1 | TAATGATCCCAAGAGCTATG |
| 670 | ATP1B1 | TCATGAACGAGGAGAGCGAA |
| 671 | ATP1B1 | TGAATTTAAGCCCACATATC |
| 672 | ATP1B1 | CATATGTACTGAACATAGTT |
| 673 | ATP6V1A | TGGAGAGATTATTCGATTGG |
| 674 | ATP6V1A | GTAACTTACATTGCTCCACC |
| 675 | ATP6V1A | GAGAGTGGGCCACAGCGAAT |
| 676 | ATP6V1A | ATGTTACCCCCACGAAACAG |
| 677 | ATP6V1A | TTTATCTTCATCGAGTATTT |
| 678 | ATP6V1A | GTGCATGGGGTCTCAGGACC |
| 679 | ATP6V1B2 | CTTCATTAACCGTGATAGTG |
| 680 | ATP6V1B2 | TACAGAGGGGCAGATCTATG |
| 681 | ATP6V1B2 | ATGGACAATTTCAGCATACC |
| 682 | ATP6V1B2 | TACTAGCTGGTTAGATACAT |
| 683 | ATP6V1B2 | TGGTTCCAAGGCAGTAGTTC |

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| 684 | ATP6V1B2 | GTAATGTAGCCAGTCAAGTC |
| 685 | ATP6V1C2 | CTGGAAGCATGTCGGAGTTT |
| 686 | ATP6V1C2 | AACTCGACACCTTTGCTGAA |
| 687 | ATP6V1C2 | AATTTCTGCCCCTGGCGATA |
| 688 | ATP6V1C2 | CCTACCTACCTCCGTTTGCC |
| 689 | ATP6V1C2 | ATCTGTCTAGGTGGGGACCT |
| 690 | ATP6V1C2 | TCTGAGCCATTCTCCTTATG |
| 691 | ATP8B3 | CTCCTTGAACTGCCCGTTGT |
| 692 | ATP8B3 | AGGGGTACTGAGCGAGAACC |
| 693 | ATP8B3 | TCCTCTTCATCCGTGCCACC |
| 694 | ATP8B3 | GCCAACAACCGTGCCTACAA |
| 695 | ATP8B3 | CTGGCCGAGGCTGCCCATGC |
| 696 | ATP8B3 | GAGAGAAGATCTCCAAGATG |
| 697 | ATR | CTTACCAATACAACTGCCTT |
| 698 | ATR | CTTCCATGATCCCCGCCCTG |
| 699 | ATR | GAGGCCAAAGGCAGTTGTAT |
| 700 | ATR | GGATCATGGAAGCCAGCTCC |
| 701 | ATR | TTCTGTGTCAATTCATTGAC |
| 702 | ATR | ACAACTGTATTATATTCCTC |
| 703 | ATRIP | GCGAGACTCACTACATCAGA |
| 704 | ATRIP | CAGTTTATTTGCTCGTTCAC |
| 705 | ATRIP | TAAAGATAATTTCGAATTAG |
| 706 | ATRIP | TTTCCTTGTCACTGAGTGCT |
| 707 | ATRIP | GGCATGTCAAAAAATCCTTC |
| 708 | ATRIP | CAGTGAACGAGCAAATAAAC |
| 709 | ATRX | TCGTGACGATCCTGAAGACT |
| 710 | ATRX | ACTATGCAGAGCTTGCCAAA |
| 711 | ATRX | ACATACTTTGTTACAATTGA |
| 712 | ATRX | ATTCTTCTGATGAGTGTGCA |
| 713 | ATRX | CTTGCAATGAATCAAAACAC |
| 714 | ATRX | TCAGAAAAATCCAAGTCTTC |
| 715 | ATXN1L | CTTACTAAATTTCGCTCTCG |
| 716 | ATXN1L | AAGAGTTGTGTCGTCCGCCC |
| 717 | ATXN1L | GAAGACGCTACATTAAACGT |
| 718 | ATXN1L | GTGCGCAGTGCCGAAGTGAG |
| 719 | ATXN1L | CATCTCCCACCTGTAGCCGA |
| 720 | ATXN1L | CTAAAGCGCCAACCACCCGC |
| 721 | AUH | GCCTGTGATATACGAGTAGC |
| 722 | AUH | ATACCAGCACAGAATATCCC |
| 723 | AUH | CCATCTATTGCTGCAATTGT |
| 724 | AUH | GACTTCACTCCTGATTATTA |
| 725 | AUH | TAACTAGGAATTGTGGTGCT |
| 726 | AUH | CAGTAAAAATCTTATAAAAA |
| 727 | AURKA | TGAGTCACGAGAACACGTTT |
| 728 | AURKA | GCTAGTTTACCAGGTGCCGA |
| 729 | AURKA | TCTGAGCTGATGCTCCACTC |
| 730 | AURKA | CTTTGAAATTGGTCGCCCTC |
| 731 | AURKA | CCATATAGAAAATAATCCTG |
| 732 | AURKA | TTTGATGCCAGTTCCTCCTC |

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|---|---|---|
| 733 | AURKB | GGGCACTTACGTTAAGATGT |
| 734 | AURKB | ATTCTAGAGTATGCCCCCCG |
| 735 | AURKB | TGACGAGCAGCGAACAGCCA |
| 736 | AURKB | GCGCAGAGAGATCGAAATCC |
| 737 | AURKB | CGCTCCAATGTCCAGCCCAC |
| 738 | AURKB | ACCCATACTGCAGGTGGGCC |
| 739 | AVPR1B | GGGCTAAGTGCAGCACGAAC |
| 740 | AVPR1B | GTCCAGGTGAGGTAGGCCCG |
| 741 | AVPR1B | TCAACAGCCACCTGTTACCG |
| 742 | AVPR1B | GTTGAAGCCCATGTAGATCC |
| 743 | AVPR1B | GGCCACGGGCCTACCTCACC |
| 744 | AVPR1B | GCTGGCGACCGGGGGCAACC |
| 745 | AXIN2 | CAACCCATCTTCGTTCCGCC |
| 746 | AXIN2 | TGATCGTCCAGTATCGTCTG |
| 747 | AXIN2 | CACCAACATAGCGCTACTCA |
| 748 | AXIN2 | GGGCTATAGCGGCCTACGCC |
| 749 | AXIN2 | TATCTCACTGTCGTTGGCGC |
| 750 | AXIN2 | GATATCCAGTGATGCGCTGA |
| 751 | B3GAT3 | TTCCCTTACCCGAGTGCAGT |
| 752 | B3GAT3 | CGTTAGATGCGCTGGACCCG |
| 753 | B3GAT3 | ACGATGACAACACCTACAGC |
| 754 | B3GAT3 | TCCTGGCACAGGTACTGGTG |
| 755 | B3GAT3 | GAGCCCATACCTGGCATAGG |
| 756 | B3GAT3 | CAGCAAAGTAGACGACTCCT |
| 757 | B3GNT2 | GTTCCTCTACTCCGGCCACC |
| 758 | B3GNT2 | GGAAGACTCGCACCACCGTT |
| 759 | B3GNT2 | CCCATTGATGACGTTTATAC |
| 760 | B3GNT2 | TAACCACCGACGTGACCCTC |
| 761 | B3GNT2 | TTAATCGCCAGCAACAAGAA |
| 762 | B3GNT2 | ACTACTGCGAACCTGACCTG |
| 763 | B4GALNT4 | CCGTACCTCGCCCGTAGCCC |
| 764 | B4GALNT4 | ACCCCCGTACCGTCCCTCGC |
| 765 | B4GALNT4 | GCGCACCACCGTGAAGAAGT |
| 766 | B4GALNT4 | TGCTGCTGAGCTGCGCCGCG |
| 767 | B4GALNT4 | ACCAGTCCTCAAACACGTGC |
| 768 | B4GALNT4 | ACCTGCACGTGTTTGAGGAC |
| 769 | BAG1 | AGGCTTGGTAAAAAAGGTTC |
| 770 | BAG1 | TGAACCAGTTGTCCAAGACC |
| 771 | BAG1 | GGTTGCCGGGTCATGTTAAT |
| 772 | BAG1 | CTATGACCTCTTCAACAACC |
| 773 | BAG1 | GAAACACCGTTGTCAGCACT |
| 774 | BAG1 | GGAGAAGATAGCTGACCAGC |
| 775 | BAP1 | TCAAATGGATCGAAGAGCGC |
| 776 | BAP1 | CCAAGGTAGAGACCTTTCGC |
| 777 | BAP1 | TACCGAAATCTTCCACGAGC |
| 778 | BAP1 | ACCCACCCTGAGTCGCATGA |
| 779 | BAP1 | TGAAGTCCTTCATGCGACTC |
| 780 | BAP1 | CGACCTTCAGAGCAAATGTC |
| 781 | BAX | TTTCTGACGGCAACTTCAAC |

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|---|---|---|
| 782 | BAX | CCATTCGCCCTGCTCGATCC |
| 783 | BAX | AGCGAGTGTCTCAAGCGCAT |
| 784 | BAX | AGTAGAAAAGGGCGACAACC |
| 785 | BAX | TCTGATCAGTTCCGGCACCT |
| 786 | BAX | TCCAGCCCAACAGCCGCTCC |
| 787 | BAZ1A | TTTCATGTAAGCGCGAACGA |
| 788 | BAZ1A | TGTGCTGTGACGGGTAGACC |
| 789 | BAZ1A | CTCCCTCTTCGTCTGTTAGC |
| 790 | BAZ1A | TTGACTAATATGTATTCGTT |
| 791 | BAZ1A | CACTTTATACTTGAATAGTA |
| 792 | BAZ1A | TTGTTAAAGCAACACAAATC |
| 793 | BAZ1B | AAAGGTACAGTGAGCGCATT |
| 794 | BAZ1B | CAGAGAGTATGAAGCCCGCT |
| 795 | BAZ1B | GATTGTGAAGATTCATCCTT |
| 796 | BAZ1B | GAACTCCAGTCAGATTGCTC |
| 797 | BAZ1B | AGTTTCACATCATATTTGTG |
| 798 | BAZ1B | CTTCCTACTTCATTAAAAAA |
| 799 | BAZ2A | CTCCTTAGAAGTCCCGTTGA |
| 800 | BAZ2A | CAGCGTCACTACCATTATTC |
| 801 | BAZ2A | GGTGGGACTGGCAAAGATAG |
| 802 | BAZ2A | CCATATAGTCCTCCACTCAC |
| 803 | BAZ2A | TGAATAGTGGATGACTGATC |
| 804 | BAZ2A | GATGTCACTGAAGCCGTCAA |
| 805 | BAZ2B | AGTGTCGAGTGCCTTCCCAA |
| 806 | BAZ2B | TGGGAAGGCACTCGACACTG |
| 807 | BAZ2B | AGCTCTACAATCAACCCATG |
| 808 | BAZ2B | AGATGAAGTTGGTGTAGTAG |
| 809 | BAZ2B | AGTAATACATCATCTGTAAT |
| 810 | BAZ2B | TTGTCAACTCTAGCATCCAA |
| 811 | BBOX1 | TCAACTTCAATAACGCAACT |
| 812 | BBOX1 | ATGATGAACACGCATACAAG |
| 813 | BBOX1 | TGAAGTTGATGCGAACCACT |
| 814 | BBOX1 | GTTATAAGGTGTACATCACA |
| 815 | BBOX1 | CACTTACCCCAGGTGGATGA |
| 816 | BBOX1 | CAAAATCGATGCAAACAATG |
| 817 | BBX | GCTGAGCCTGTAAAACGCTG |
| 818 | BBX | ACCTCGGCAAACTGAAACAA |
| 819 | BBX | TTCTTCAAACACTTCGCAGT |
| 820 | BBX | AGGTATCCTCTGGCACATGC |
| 821 | BBX | GCTTTGTAGAAGCATCAGAG |
| 822 | BBX | TACCTCTGCAAACTGAAACA |
| 823 | BCAM | GTTGCGATACCACGTGATCT |
| 824 | BCAM | TCGCAACGGGCAGCGCCTGG |
| 825 | BCAM | GGGCTACATGACCAGCCGCA |
| 826 | BCAM | CGCCCACTACAGCCTGCCCG |
| 827 | BCAM | CACAGACAGTGTCCCTTTGT |
| 828 | BCAM | TGTGATGGAGGACTCTGCCC |
| 829 | BCAP31 | ATACTTCCGAATTTCGCGCA |
| 830 | BCAP31 | CAGATGCCGTGCGCGAAATT |

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|---|---|---|
| 831 | BCAP31 | CAAGGAGTACGACCGCTTGC |
| 832 | BCAP31 | CAACAAAGACCTCCGCATAG |
| 833 | BCAP31 | CACCGATGACCAACAGCACA |
| 834 | BCAP31 | TTGCGTGCTCCTCCAGCAAG |
| 835 | BCAS1 | GACAACCCCTGAACCTGCGA |
| 836 | BCAS1 | GACAACGCGTCTGCTCTGAA |
| 837 | BCAS1 | CAGTGAGTTCGTGTCCACCG |
| 838 | BCAS1 | ACGGACTGTGTGTGCCCCGA |
| 839 | BCAS1 | GGCCTTTAAAGAAGCCCCCA |
| 840 | BCAS1 | CCTCTAAGTGCTGAACTGTG |
| 841 | BCAS3 | ACCATCTGTATACTCTTCAC |
| 842 | BCAS3 | TTCCAGAGAGCAGTCCTACA |
| 843 | BCAS3 | TTAAAAGCCATGCAGCACAC |
| 844 | BCAS3 | GCACATTGTGATGAGGACCA |
| 845 | BCAS3 | AGTCACAACACTTTCCATGT |
| 846 | BCAS3 | TGAGAAGCCAGTGTGCTGCA |
| 847 | BDP1 | TTAGCGTGAAGCCGAATGTC |
| 848 | BDP1 | GATGTGCCCACAGTCGATTT |
| 849 | BDP1 | ATTCGGTATCTGTCTGAGCA |
| 850 | BDP1 | CACTGACACTAGACTTAACC |
| 851 | BDP1 | ATGCTATAAATGAAAGTCAG |
| 852 | BDP1 | TACGTCATTGGATTATTATC |
| 853 | BEND6 | AGAAAGGCATTTCCCGAATA |
| 854 | BEND6 | CAGCCGACTTCGACAGTCTT |
| 855 | BEND6 | AGCTTTGTCCCTTGAAGTAG |
| 856 | BEND6 | TATGGCCGAGGCTCTGCTTA |
| 857 | BEND6 | TCAGTCTGATGCTCTTCCTC |
| 858 | BEND6 | ACTTCATTCTGATTCATAGC |
| 859 | BGLAP | CAATCCGGACTGTGACGAGT |
| 860 | BGLAP | CGGGCCGTAGAAGCGCCGAT |
| 861 | BGLAP | CTGGCCGCACTTTGCATCGC |
| 862 | BGLAP | CTGGCCAGCGATGCAAAGTG |
| 863 | BGLAP | GCGAGGTAGTGAAGAGACCC |
| 864 | BGLAP | CCTCATACCTGCACCTTTGC |
| 865 | BHLHE41 | GCTCGCCGCCGAGAACGACA |
| 866 | BHLHE41 | ATCGCCCATTCAGTCCGACT |
| 867 | BHLHE41 | CATGAAACGAGACGACACCA |
| 868 | BHLHE41 | GTCTCGTTTCATGCTCCTTT |
| 869 | BHLHE41 | ACTGCAGACTCTGGGACATC |
| 870 | BHLHE41 | ACTGTCAATTTCAGATGTTC |
| 871 | BHMT | TTGCGACATCGCCCGACAAG |
| 872 | BHMT | CTATGCGAGTGAAGACAAGC |
| 873 | BHMT | CTCCAGCATTTAAACGTTCT |
| 874 | BHMT | AGTATTTCTGCAACAGTTAG |
| 875 | BHMT | CTTGTCTTCACTCGCATAGA |
| 876 | BHMT | ATCCTAGAACGTTTAAATGC |
| 877 | BIRC6 | GTAGTGTATGCCTCGTTTGT |
| 878 | BIRC6 | ACTCACCAAGGTTCATCAGT |
| 879 | BIRC6 | GCCCACCTATAGCCTACATG |

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|---|---|---|
| 880 | BIRC6 | TGTATAGTGAAGCTAACAGA |
| 881 | BIRC6 | CTTATCAGCATGTTTAGAAA |
| 882 | BIRC6 | TTCTTACCTTAGCAACTTTG |
| 883 | BLOC1S5 | CGAGTTTCACCTTGAATAAC |
| 884 | BLOC1S5 | CCGCATTGTGTCTCTACATT |
| 885 | BLOC1S5 | GATCACAGACCAGTTATTCA |
| 886 | BLOC1S5 | ACTCACATCTCTGGAGAACC |
| 887 | BLOC1S5 | CAGTCTGTAGACTCCAACAG |
| 888 | BLOC1S5 | TTCGTTCCTGTTCCCTCTGT |
| 889 | BOLA2 | CATGGCAAGCGCGAAAAGCC |
| 890 | BOLA2 | TCACCACATGCTCCGCCTCC |
| 891 | BOLA2 | CTCCTGTAGCTTCCGAGTCC |
| 892 | BOLA2 | TACCTGTGTCTCTGAAGCAG |
| 893 | BOLA2 | AAACCCTGACCCCAGACCAG |
| 894 | BOLA2 | TCTGTCGCTCACGTGCCCAC |
| 895 | BOP1 | TTCTGGCGTCTCCGACAGCG |
| 896 | BOP1 | GGACGGAGCCCTTGATGACG |
| 897 | BOP1 | GCGGCGGTCTGAGCCCGAAC |
| 898 | BOP1 | GCACGGCGGCGCCGAGCGTG |
| 899 | BOP1 | AGGCCAGCACTCCTTGCCCG |
| 900 | BOP1 | CCGCATACTCATCCCCAATC |
| 901 | BPHL | CCGTGAAGAGCTTCTTATTG |
| 902 | BPHL | TCCATAGCCTCGAGGATCCC |
| 903 | BPHL | TTCATTCATAAGCACGTGAA |
| 904 | BPHL | CTCGGTAACCTCTGCCAAAG |
| 905 | BPHL | CGAAGACAGCATGATATATG |
| 906 | BPHL | GTACCCAGACCTAACATCCC |
| 907 | BPTF | GTTCCGCAGTACCTCGTAAA |
| 908 | BPTF | ACGCTATCTTTCAGATCAGC |
| 909 | BPTF | ACCATTAGCTGCCGCCAGAA |
| 910 | BPTF | CCAGATGATGACCCTGAGCA |
| 911 | BPTF | AGTCAATTAATTCTGCAAGT |
| 912 | BPTF | ACACATTATAGAAGAAATTT |
| 913 | BRAF | CCCCACCAAATTTGTCCAAT |
| 914 | BRAF | GAGGCCCTATTGGACAAATT |
| 915 | BRAF | GTTGCTCCGTGCCACATCTG |
| 916 | BRAF | GTGCTTTCTTTAGACTGTCT |
| 917 | BRAF | TGATACCATAGGTACCTGCA |
| 918 | BRAF | TAGCACTGAAAGGCTAGAAG |
| 919 | BRCA2 | CTGTCTACCTGACCAATCGA |
| 920 | BRCA2 | ATGTAGCACGCATTCACATA |
| 921 | BRCA2 | CGATTACCTGTGTACCCTTT |
| 922 | BRCA2 | GTCTTACCGAAAGGGTACAC |
| 923 | BRCA2 | ACTTATTAAATGAATTTGAC |
| 924 | BRCA2 | AAATCAAGAAAAATCCTTAA |
| 925 | BRD2 | CGACCACTCTCTCTACGCAT |
| 926 | BRD2 | AGCTGGTTGGTAACTCGTCC |
| 927 | BRD2 | TCATCGCTTAGCAGAACTAC |
| 928 | BRD2 | GAGTCAGGCAAGTCTTTGCG |

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|---|---|---|
| 929 | BRD2 | TGTGGAAACATCAGTTCGCA |
| 930 | BRD2 | GAAGACGATTTGGCCAAGCC |
| 931 | BRD3 | CGACGTGACGTTTGCAGTGA |
| 932 | BRD3 | CAAAGGTCGGAAGCCGGCTG |
| 933 | BRD3 | CATCACTGCAAACGTCACGT |
| 934 | BRD3 | CGCAATCAAATTGAACCTGC |
| 935 | BRD3 | CGCCACGACAGTCGCCCCCG |
| 936 | BRD3 | ATTATTACCCCCTGCTCCAA |
| 937 | BRD4 | ACTAGCATGTCTGCGGAGAG |
| 938 | BRD4 | TCTAGTCCATCCCCCATTAC |
| 939 | BRD4 | GGGAACAATAAAGAAGCGCT |
| 940 | BRD4 | GTCGATGCTTGAGTTGTGTT |
| 941 | BRD4 | ACAGGAGGAGGATTCGGCTG |
| 942 | BRD4 | TAAGATCATTAAAACGCCTA |
| 943 | BRDT | AGCTCCCTGTACCACGTTCA |
| 944 | BRDT | TCCTGTTGACGTTAATGCTT |
| 945 | BRDT | TTGGGCCGCAGTTTGTGAAC |
| 946 | BRDT | CCCAAAGCATTAACGTCAAC |
| 947 | BRDT | ATAAGAACAATGTCATCTCC |
| 948 | BRDT | GCCACAAGAAGAGCAAGTTG |
| 949 | BRF2 | CGCGGTTGCCTACTACCAAC |
| 950 | BRF2 | GAGATTGCCCTCGTCGCTGA |
| 951 | BRF2 | TACCACTACCTTCAGCGACG |
| 952 | BRF2 | ACAGTATTTGCGTACCCCTC |
| 953 | BRF2 | GCTGTCTCGAACAATGCAGT |
| 954 | BRF2 | AGGGACGTACCTGCTGCAAT |
| 955 | BRICD5 | TGTGCTGAGCGCCCCAAACC |
| 956 | BRICD5 | CGTTCCGGGCCACGTCCACC |
| 957 | BRICD5 | CGAACAGCACCGCCCAGCTG |
| 958 | BRICD5 | GCACTCACCCCTGTAGGCCC |
| 959 | BRICD5 | AGGGCTTCTTGGCTCTGCTC |
| 960 | BRICD5 | GTGAAGACCAAGCCCTCCTG |
| 961 | BRSK1 | GAAGAACTTTCGGGCCTCCT |
| 962 | BRSK1 | AGTCCAGCGCAGACACAATC |
| 963 | BRSK1 | CCTGCCATCCAACGGAGAGC |
| 964 | BRSK1 | CCCCGACGTCCTAGAGAGCA |
| 965 | BRSK1 | TTACCACGAGCAGGGCGAAG |
| 966 | BRSK1 | CATCCTCTTCGCCCTGCTCG |
| 967 | BTBD9 | TCTTGTGGGACCGAGATAGC |
| 968 | BTBD9 | ACCTAGCTTAATCTCGATGC |
| 969 | BTBD9 | GCTCTCAGATCGCACTTTAA |
| 970 | BTBD9 | TACACACTTACCGAAAATAT |
| 971 | BTBD9 | GTGCTTACACCAGTTTAATA |
| 972 | BTBD9 | TCTTCGCCCCTTTACTGCAG |
| 973 | BTG2 | TTTCCCGAAAAGCCGTCCAA |
| 974 | BTG2 | CTCCATCTGCGTCTTGTACG |
| 975 | BTG2 | CCGCGCGCGACATGAGCCAC |
| 976 | BTG2 | GGTCTTCAGCGGGGCGCTCC |
| 977 | BTG2 | CTCCTCGTACAAGACGCAGA |

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|---|---|---|
| 978 | BTG2 | CCCCTCCAAGAACTACGTGA |
| 979 | BTG4 | GCTACAACTTTCTTCATCGC |
| 980 | BTG4 | CTGCTATGCACCGGCTGGAC |
| 981 | BTG4 | CAATCCGAAGAGTATTTATC |
| 982 | BTG4 | AGAAGCATCCTAAGTGTTAC |
| 983 | BTG4 | TTCCGAAGGAGATGACCATA |
| 984 | BTG4 | CACTCTGATTGCCCTTCTAA |
| 985 | BUB1 | CCCGCCCAGGCAATGTACAG |
| 986 | BUB1 | AGTTCCTGCAACAACAATAC |
| 987 | BUB1 | GAAACCCATTTGCCAGCTCA |
| 988 | BUB1 | AAACAATAACTGATGAATCT |
| 989 | BUB1 | TTTACTAGAACATTTAATGA |
| 990 | BUB1 | CATCCCCTCTGTACATTGCC |
| 991 | BUB1B | ATGATCCGCCCTTGCCTTAA |
| 992 | BUB1B | GCGGATCATGTCCACGCTTC |
| 993 | BUB1B | GCGTTTATGCAATGAGCCTT |
| 994 | BUB1B | TCCCATTTAGGTATATCAGC |
| 995 | BUB1B | CAAGTGAAACACCAATCCCT |
| 996 | BUB1B | AGCCAGAGATTGAGAAATCG |
| 997 | C10orf90 | AATCGTGAACTGCTTCTTGC |
| 998 | C10orf90 | CCCTCGCCAGCACCCCGCGA |
| 999 | C10orf90 | TGCAAGGTCAAAGATCTTGC |
| 1000 | C10orf90 | ACGATTCCCCATCCTCTGAG |
| 1001 | C10orf90 | TCTCCAGTCTGATGTCACAG |
| 1002 | C10orf90 | TTGCCTCTGTGACATCAGAC |
| 1003 | C11orf87 | GCTTCTTCATCCTACGCTTG |
| 1004 | C11orf87 | AGCGGCAACACGGGTGCCCG |
| 1005 | C11orf87 | CCAGCCGGGTTTCCTTTGCG |
| 1006 | C11orf87 | CTTTCCACATCCACAAGCGT |
| 1007 | C11orf87 | TGCCGCTGCCTACTGCGCCT |
| 1008 | C11orf87 | TTTGCTTCCCCCAACGCCAG |
| 1009 | C19orf73 | GAACCATTAGCCTCGTCCGC |
| 1010 | C19orf73 | TTCGCCCTCAGACGCTCTTA |
| 1011 | C19orf73 | GGTGCCGCGTGCAGTTCCCG |
| 1012 | C19orf73 | CCAAACACAGCGCGTCTTTC |
| 1013 | C19orf73 | CTTCCAAGAGACTAGTCCGA |
| 1014 | C19orf73 | CAGGGTTCCCCCGGCGGACG |
| 1015 | C1orf21 | CGCCAAACACATCTCCGTTC |
| 1016 | C1orf21 | TGAGTATAGGATCAAACCAG |
| 1017 | C1orf21 | CTGGGTTGATGAACTAATCC |
| 1018 | C1orf21 | ATGTATTTGACCTCTTCCAC |
| 1019 | C1orf21 | TTTAAGTCTTACATTTGAGC |
| 1020 | C1orf21 | TGCCACTGTTCAAAATGAAG |
| 1021 | C1QTNF1 | GGTGGTGATCTTGTTCGCGC |
| 1022 | C1QTNF1 | CCGTGTCGAAGATCACCGTC |
| 1023 | C1QTNF1 | CACGGCGGTCGCCGGGTACA |
| 1024 | C1QTNF1 | TGAGGAGCTGCCGTCGCCTC |
| 1025 | C1QTNF1 | GAGTCGTGTGCCCCATGTCC |
| 1026 | C1QTNF1 | TCAAGATAGTGATGTTGATC |

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|---|---|---|
| 1027 | C1R | CTCGCCAATGTTCTTCCCGT |
| 1028 | C1R | GGGCTCTTACCTCTATGAGC |
| 1029 | C1R | GTGCAGCAGCGAGCTGTACA |
| 1030 | C1R | CAGATCCACAGCATTGCTGC |
| 1031 | C1R | GAGCTTCACCCTGTATCCCG |
| 1032 | C1R | GGATGCTGTAGTTGCAGCGC |
| 1033 | C2CD4A | GACCCAAGCGGAGTCGCTCC |
| 1034 | C2CD4A | AGTGCTGCATTGCCGAAGCG |
| 1035 | C2CD4A | CCCCGGGCCCACACCTACGG |
| 1036 | C2CD4A | CCACGAGCCCGCCGTCGTCC |
| 1037 | C2CD4A | GGCGCACTTCGTCCTCCGAG |
| 1038 | C2CD4A | GCCAGTCTCCGCTCCGCCGA |
| 1039 | C2orf40 | GTAGTCATCGTAGTTGACGC |
| 1040 | C2orf40 | CCCGGAGCCCCTACGGCTTT |
| 1041 | C2orf40 | GCTGCACCTCGGGCCGAGTC |
| 1042 | C2orf40 | ACTTTAGTCTTAGTTGGAAC |
| 1043 | C2orf40 | GCCAGGACAGCAGGCCGCGC |
| 1044 | C2orf40 | CTGATGCTTCAAAAACGAGA |
| 1045 | C2orf83 | AACCACAGTCATCGTCACGA |
| 1046 | C2orf83 | ACCCATCGTGACGATGACTG |
| 1047 | C2orf83 | CCACTTGCCTTAGCGTAAGA |
| 1048 | C2orf83 | AGTTCATCCATCTTACGCTA |
| 1049 | C2orf83 | CAAGATCAGGTGGCAGCATC |
| 1050 | C2orf83 | CAGATGCTGCCACCTGATCT |
| 1051 | C3orf35 | TGCAATCACCTTGGGTCCAA |
| 1052 | C3orf35 | GCGGGCTAATGCAGAGCAGA |
| 1053 | C3orf35 | AGCCTTCCATTGCTCCACAC |
| 1054 | C3orf35 | AGCAGCACACCTGGTGCGTG |
| 1055 | C3orf35 | AGGTGTAAACTTTCCAGAAC |
| 1056 | C3orf35 | CGTGAGAAGAGACACCTGTG |
| 1057 | C4orf19 | GCCGATGCCGTTGACACCGC |
| 1058 | C4orf19 | TGATCAACGTTGTCTCCAGC |
| 1059 | C4orf19 | AAACAATCCAGATGGGGTGC |
| 1060 | C4orf19 | ACCCATGGCTCCGATGGAGA |
| 1061 | C4orf19 | CCCCAATGCTGAAGGTAATC |
| 1062 | C4orf19 | GGGAACAGTATTTGCAGTAC |
| 1063 | C6orf141 | CACCCAAATACGTGCTTGTG |
| 1064 | C6orf141 | CACCCGCACAAGCACGTATT |
| 1065 | C6orf141 | CAGGCGTGTAGCCCCGCCGC |
| 1066 | C6orf141 | GATCTGCCGTTCTGTCCTCG |
| 1067 | C6orf141 | ACGAGGACAGAACGGCAGAT |
| 1068 | C6orf141 | GGGATGCCCCTGTTCGTGCC |
| 1069 | C7orf43 | ATCGGGTCTGCAGCAATCGC |
| 1070 | C7orf43 | GGGCGAGCAGAGCGCTTTCA |
| 1071 | C7orf43 | GAGGATTCGGATATCCCAGA |
| 1072 | C7orf43 | TATCTACCTGTCATGCCCGA |
| 1073 | C7orf43 | GAGATGCCGGCAGTTCACTG |
| 1074 | C7orf43 | AAAACACTTGACCGTGCTCA |
| 1075 | C9orf85 | CGATAAAAGTGTGCAGACCA |

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|---|---|---|
| 1076 | C9orf85 | AACGAGCCACGTTGCCTTTC |
| 1077 | C9orf85 | ATTCTTATCACATAATGTGC |
| 1078 | C9orf85 | TGCGCAAACTTCAAGTTCAC |
| 1079 | C9orf85 | ATTAATGCAAAACTTCATGA |
| 1080 | C9orf85 | CATTATCAAAACCTAAAAAG |
| 1081 | CA2 | TTCACTAACTTCGATCCTCG |
| 1082 | CA2 | GTATGAGTGTCGATGTCAAC |
| 1083 | CA2 | CAATGGTCATGCTTTCAACG |
| 1084 | CA2 | CTGCTCGCTGCTGACGCTGA |
| 1085 | CA2 | ACAAGGTTCAGAGCATACTG |
| 1086 | CA2 | CTTAGCTTCACTTGGTTCAC |
| 1087 | CABP5 | CACGGTTCATGCGGATTTGC |
| 1088 | CABP5 | CTCAATCAGTTCCATCTCCG |
| 1089 | CABP5 | TCTATTCAGTTTGACACGAA |
| 1090 | CABP5 | TGAAGGCATCCCGCATCTCC |
| 1091 | CABP5 | GACGGCACAGTTGACTTTGA |
| 1092 | CABP5 | TGATCGGTGTCCAGGAGATG |
| 1093 | CABYR | AAGTTACGGTATTGCTGGGG |
| 1094 | CABYR | CCATCAGTTTATGCTGTGCC |
| 1095 | CABYR | TCCTTCAGGGAATACTACTA |
| 1096 | CABYR | GATGTAGCTAAAAAAAGTTC |
| 1097 | CABYR | CAGCTTGCTGCTCAGATGTT |
| 1098 | CABYR | AAACAATTTCATCAGATTAA |
| 1099 | CACNA1S | GAGCAAGATGATCGTCTCGA |
| 1100 | CACNA1S | CAGGACGCTTACCTGCGCAG |
| 1101 | CACNA1S | CACCATCTTTGCCAATTGTG |
| 1102 | CACNA1S | CTGGTGGAATAAGAAGCCGT |
| 1103 | CACNA1S | GTCAGGCAGAACAAGGCCCG |
| 1104 | CACNA1S | CTTGGCAGAATCTCAGGAAC |
| 1105 | CACNB1 | ACCGTCGCTCAAGGGCTACG |
| 1106 | CACNB1 | ACCTCGTAGCCCTTGAGCGA |
| 1107 | CACNB1 | GGGCGATTCAAACGGTCAGA |
| 1108 | CACNB1 | TCTCGAGCTGCGCTAATGCC |
| 1109 | CACNB1 | GGCATTAGCGCAGCTCGAGA |
| 1110 | CACNB1 | ATCCAACAGCTTTGTCCGCC |
| 1111 | CACNB4 | GGACCGGGAAGCAATTCGAC |
| 1112 | CACNB4 | CCCGTCCGCGGTCCCGTTCT |
| 1113 | CACNB4 | GTCTGACTCCGATGTCTCTT |
| 1114 | CACNB4 | GAACAGGCACATCCTCGTCC |
| 1115 | CACNB4 | GCCGCACTCCCCCACCTCGC |
| 1116 | CACNB4 | AAGACAAATGTGAGCTACTG |
| 1117 | CAGE1 | GGTGGGACTTCTCACATGCC |
| 1118 | CAGE1 | ATAAGCATCTTCACAAAGTG |
| 1119 | CAGE1 | GACACATTCTAATCTGCTCC |
| 1120 | CAGE1 | ACACTTTGTGAAGATGCTTA |
| 1121 | CAGE1 | ACATTTCAAAGAGAGTGAGA |
| 1122 | CAGE1 | AAAGAAAACTTTAGATAAAG |
| 1123 | CAMK1 | CATTGTACACCGGGATCTCA |
| 1124 | CAMK1 | GGAGCTCTTTGACCGTATTG |

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|---|---|---|
| 1125 | CAMK1 | CAAGTGCCGGATGAAATCTT |
| 1126 | CAMK1 | GCACCCCAACATTGTAGCCC |
| 1127 | CAMK1 | CACTCTCATAGATGTCATCC |
| 1128 | CAMK1 | GAAAAGATTCACCTGTGAGC |
| 1129 | CAMSAP3 | TGGCCCGCGAGAAATCGTAC |
| 1130 | CAMSAP3 | GGTACCTGCGCCCCCGAACG |
| 1131 | CAMSAP3 | TCTGCAGATCCGATACCGCA |
| 1132 | CAMSAP3 | CTGCCCTCCAGACCGTCCGG |
| 1133 | CAMSAP3 | GGGCACGTCGCGCCACCACA |
| 1134 | CAMSAP3 | TCGCTGGGCCGCTTCCTGCT |
| 1135 | CANT1 | ATTCGATACCGAATCCCAGC |
| 1136 | CANT1 | AGCCCGCAGGGCGTTGTAGT |
| 1137 | CANT1 | GGGGTCGTCTACCAGATCGA |
| 1138 | CANT1 | ATCGGAAGCGTGAAATACGA |
| 1139 | CANT1 | GTATTTCACGCTTCCGATCT |
| 1140 | CANT1 | GAAGGACGAGCGTCTGTACG |
| 1141 | CAPN8 | CGGTGGAATTCAAGACGCTC |
| 1142 | CAPN8 | GGAACAGACATAAAATTCGA |
| 1143 | CAPN8 | ATTCAACATCAACACTTGCA |
| 1144 | CAPN8 | CAAAAGTATCTTGAGTGCAT |
| 1145 | CAPN8 | ACGTGCCTAGAGCAATGGAA |
| 1146 | CARS2 | TGCGCATGATCATATACAGT |
| 1147 | CARS2 | GGACGCACGTGCCTACATGA |
| 1148 | CARS2 | GTATATGATCATGCGCACCT |
| 1149 | CARS2 | TTAGATTTGATATCATTCGA |
| 1150 | CARS2 | TTCCCTCGCCAGTCTTTATG |
| 1151 | CARS2 | TATGCTGCATCCAAAAACCT |
| 1152 | CATSPER2 | TGATCGTATTCAAAAAGACC |
| 1153 | CATSPER2 | AAACCAAGCTGCCACCTCCA |
| 1154 | CATSPER2 | TTTGAATACGATCATATTGA |
| 1155 | CATSPER2 | TCAAATTCAAATTATTATTT |
| 1156 | CATSPER2 | AAATAATAATTTGAATTTGA |
| 1157 | CATSPER2 | AATCCACAAATACCAAACTA |
| 1158 | CBS | GATTTCGTTCTTCAGCCGCC |
| 1159 | CBS | GAGTCGAACCTGGCATTGGT |
| 1160 | CBS | TGTGCCCTCAGGGATCGGGC |
| 1161 | CBS | ATCTTGTTGATTCTGACCAT |
| 1162 | CBS | TTCTCGGAGCTCATCTTCTC |
| 1163 | CBS | ATGGTCAGAATCAACAAGAT |
| 1164 | CBX3 | AACACAGTGCTGACAATACT |
| 1165 | CBX3 | AGACTTGGTGCTGGCGAAAG |
| 1166 | CBX3 | AAACAGGCTGACAAACCAAG |
| 1167 | CBX3 | AGAAACGCTTCAATCAATTC |
| 1168 | CBX3 | AAACAGGAAAGATTCAGATG |
| 1169 | CBX3 | AGAGCCTGAAGAATTTGTCG |
| 1170 | CCDC154 | GTCCAGCCATCCGACATCCA |
| 1171 | CCDC154 | GAAGGGGCCGATGCCCCTGA |
| 1172 | CCDC154 | AGCGCTGTGAGCGCGCCACG |
| 1173 | CCDC154 | GACGAGCTGCTGCCCTCGTC |

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| 1174 | CCDC154 | GGCAGCCCAGGCCCCCGAAA |
| 1175 | CCDC154 | CAAGGCCCAAGCTACAGCCG |
| 1176 | CCDC155 | TCGAAGCTTGTGACCCTCAG |
| 1177 | CCDC155 | CCCGGTGGGTGGCCCCACTG |
| 1178 | CCDC155 | CACCCACCGGGCCCTCGGGC |
| 1179 | CCDC155 | TTGATACAGGGGATTAGAGC |
| 1180 | CCDC155 | TCTCACCAGATGGCAGTTGC |
| 1181 | CCDC155 | TGTCTCCCCAGTGTACCTCC |
| 1182 | CCDC25 | CAGTTACCTTATGTAATCGA |
| 1183 | CCDC25 | TGTATACCTTCGATTACATA |
| 1184 | CCDC25 | GTTACTTACCAGATATCTTC |
| 1185 | CCDC25 | ATCTGCCTACACTATTTACA |
| 1186 | CCDC25 | CGCCCACTCACCGCTGCTGC |
| 1187 | CCDC25 | GATGAAGATCTGATCAAGCA |
| 1188 | CCDC28A | AACAGCCAGTGACTCCAATC |
| 1189 | CCDC28A | GAAATTAGCTCGCTTGAATT |
| 1190 | CCDC28A | TTAAGTTCCTTATTGCACCA |
| 1191 | CCDC28A | CACAGCGACCAAAGTTAAAA |
| 1192 | CCDC28A | CACTGATGTCTCAGATGTTC |
| 1193 | CCDC28A | GAACATCTGAGACATCAGTG |
| 1194 | CCDC78 | TCCTTATTGAGCGCTAGATC |
| 1195 | CCDC78 | ACCAGATCTAGCGCTCAATA |
| 1196 | CCDC78 | TGTCCCACAGATCCTTCGGC |
| 1197 | CCDC78 | ACCCCGAGAATGAGCAGCAC |
| 1198 | CCDC78 | TCATGGTAACCTGGAATCTG |
| 1199 | CCDC78 | CTGAATGTCGACCAGCTCCT |
| 1200 | CCL8 | GCTGCTTTAACGTGATCAAT |
| 1201 | CCL8 | ACAGACCTCCTTGCCCCGTT |
| 1202 | CCL8 | CACCAACATCCAATGTCCCA |
| 1203 | CCL8 | CAGGGATTCCATGAAGCATC |
| 1204 | CCL8 | AAGTGGCTGCCATGAGCAGC |
| 1205 | CCL8 | CCTCAGGGACTTGCTCAGCC |
| 1206 | CCNA2 | CAGCGCCCGTCCAACAACCG |
| 1207 | CCNA2 | CCGGGTCCGCGGTTGTTGGA |
| 1208 | CCNA2 | CAGTATGAGAGCTATCCTCG |
| 1209 | CCNA2 | TGAAGTACCAGACTACCATG |
| 1210 | CCNA2 | CTTCAACTAACCAGTCCACG |
| 1211 | CCNA2 | ATTGACATGTCCATAGTATG |
| 1212 | CCND1 | CGAAGGTCTGCGCGTGTTTG |
| 1213 | CCND1 | CTTGCACACCCACCGACGTG |
| 1214 | CCND1 | GATGTCCACGTCCCGCACGT |
| 1215 | CCND1 | GTTCGTGGCCTCTAAGATGA |
| 1216 | CCND1 | TGTTTGTTCTCCTCCGCCTC |
| 1217 | CCND1 | GAAGCGTGTGAGGCGGTAGT |
| 1218 | CCNDBP1 | CCCACAAGTCGGCGAAGCCC |
| 1219 | CCNDBP1 | CATAATCCCATGCCTTGCGC |
| 1220 | CCNDBP1 | TGGATGCTCTCACCAGCGCA |
| 1221 | CCNDBP1 | AGTTTAATCGAGAGATGTTC |
| 1222 | CCNDBP1 | CGCAACCCAGACACTGTTGT |

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|---|---|---|
| 1223 | CCNDBP1 | CAGATGCCTCAGATACCAAG |
| 1224 | CCNG1 | TGATCCGAATAAGTCAATAT |
| 1225 | CCNG1 | TTGTTTCTGGGCGTACTGCA |
| 1226 | CCNG1 | ACCAGTTAAGGGACCATTTC |
| 1227 | CCNG1 | TAAACCTATATTGACTTATT |
| 1228 | CCNG1 | AAGACTAGAAGCTCAACTGA |
| 1229 | CCNG1 | AAGTGTGTAGAGTTAACAGA |
| 1230 | CCNG2 | CGGGTTGTTGAACGTCTACC |
| 1231 | CCNG2 | CGTTCAACAACCCGAGAAGT |
| 1232 | CCNG2 | AGCCTTGTGCCTTCTCAATT |
| 1233 | CCNG2 | TGTCCAAAATATTGACAGCC |
| 1234 | CCNG2 | GCTGAGCTTCTAGTTTATCA |
| 1235 | CCNG2 | AATGATAACACTTTGTGTCC |
| 1236 | CCNL2 | ATGACGTCCCGTATGCGTCT |
| 1237 | CCNL2 | ACTTGGTATAAAAGAACCGC |
| 1238 | CCNL2 | ACCTCGAGTAGCTCTGCTCA |
| 1239 | CCNL2 | TCCGCTTCAGCATGTGTCAA |
| 1240 | CCNL2 | TCCTCTTAGGAGACGCTGAT |
| 1241 | CCNL2 | CTCCATGGAGTGCTTCACGA |
| 1242 | CCNO | GCATTTCACGCACGCTCGCG |
| 1243 | CCNO | ATCCCGGTGCACCGCCAATT |
| 1244 | CCNO | ACTCGAAGGAGAGGCCGAAT |
| 1245 | CCNO | CTACAGACCTTCCGCGACTA |
| 1246 | CCNO | CTCGAACAGGTCGCAAATGC |
| 1247 | CCNO | AGCTAATGGTGGGCGCACCC |
| 1248 | CD300LG | GGGGCCAGTATGCGGACCAT |
| 1249 | CD300LG | AGTACTCCCCAGCGTCTTGC |
| 1250 | CD300LG | TCGAACCCGCTGATTTCCTC |
| 1251 | CD300LG | CTGTCCTTACCAAGCGTGAG |
| 1252 | CD300LG | GAAGTTCTGCCTCTCACGCT |
| 1253 | CD300LG | TGCAGGCGTGTTGTAGCCAG |
| 1254 | CD36 | CTCACTCACCTGTACGTATA |
| 1255 | CD36 | ACCTTTATATGTGTCGATTA |
| 1256 | CD36 | TAGCAAGTTGTCCTCGAAGA |
| 1257 | CD36 | GCCATAATCGACACATATAA |
| 1258 | CD36 | GATGTTTCAGAACCTATTGA |
| 1259 | CD36 | TCAATAGGTTCTGAAACATC |
| 1260 | CD46 | CAATTGTGTCGCTGCCATCG |
| 1261 | CD46 | CGATTTCCAGTAGTCGAAAA |
| 1262 | CD46 | TTTAAAGGATCCCGTATATA |
| 1263 | CD46 | AACTCGTAAGTCCCATTTGC |
| 1264 | CD46 | TCGTTCACCAATCTCATAGT |
| 1265 | CD46 | TAACAGGCGTCATCTGAGAC |
| 1266 | CD72 | CCCCTCGACAGCGGTCAAGT |
| 1267 | CD72 | GGGCACTTGAACATTCTCGT |
| 1268 | CD72 | ACGGCTCTCCAGGACGCAGT |
| 1269 | CD72 | GGTATCGCAGGCAGGTTGTG |
| 1270 | CD72 | TGATGCATTATCCATCCCGA |
| 1271 | CD72 | GTTCAAGTGCCCGCAGTCCT |

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|---|---|---|
| 1272 | CDA | TGAACGGACCGCTATCCAGA |
| 1273 | CDA | GTGTACATGACCAAGCCGGA |
| 1274 | CDA | GGTCATGTACACGGGCCAGT |
| 1275 | CDA | AGAAAATGCCTGCTACCCGC |
| 1276 | CDA | AAAGTGACTGTAGGGGCAGT |
| 1277 | CDA | CCCCTACAGTCACTTTCCTG |
| 1278 | CDADC1 | CAGTGGCAGCTGAATCCATC |
| 1279 | CDADC1 | CTCTCGTAGAGAAGTTGTGA |
| 1280 | CDADC1 | TCAGCATACTCAGATCCAAC |
| 1281 | CDADC1 | AGTATCTACTGACAAAAGAC |
| 1282 | CDADC1 | CCTCTCTTCATTATCTCCTA |
| 1283 | CDADC1 | AGGTTGACTTTAGAAAGCCT |
| 1284 | CDC42 | ATTTGAAAACGTGAAAGAAA |
| 1285 | CDC42 | ACAGTCGGTACATATTCCGA |
| 1286 | CDC42 | GACAATTAAGTGTGTTGTTG |
| 1287 | CDC42 | TCAAAAAGTCCAAGAGTATA |
| 1288 | CDC42 | TATGCAGTCACAGTTATGAT |
| 1289 | CDC42 | ACTAGAAATACATCTGTTTG |
| 1290 | CDC42BPA | AACCTTGCACTATGCTTTCC |
| 1291 | CDC42BPA | CAACATAATAATCCATAACC |
| 1292 | CDC42BPA | TCATTCACAGTACCTGGTTA |
| 1293 | CDC42BPA | TTACTAAGTTATTGTCATCC |
| 1294 | CDC42BPA | TGTTTCACTTTAGAAGTAAA |
| 1295 | CDC42BPA | AGAAGACTTTGAAATATTAA |
| 1296 | CDC73 | AGTTTCTTTACCTCAATTCG |
| 1297 | CDC73 | CCTGATCGAAAAGATCTACT |
| 1298 | CDC73 | TCGCTGAAGACCTATTTCTA |
| 1299 | CDC73 | AGAAGCGCTCCCTTAGAAAT |
| 1300 | CDC73 | AGCAAAGAAACCACGAATTG |
| 1301 | CDC73 | TTAGACTGAAAATATTCCTG |
| 1302 | CDH13 | CAAAGTCCCAGTGCCCGTAG |
| 1303 | CDH13 | TACACGCTGTTGTCGACAAA |
| 1304 | CDH13 | GCTTACAGTTTAGAATTGAC |
| 1305 | CDH13 | ACTCACCACTGTCAATTGCC |
| 1306 | CDH13 | AAGCTGTTCCTGATAAAGTC |
| 1307 | CDH13 | TCAGCCAGCTGAATTCATTG |
| 1308 | CEACAM16 | GCACGGTCAGTGTTACGTCC |
| 1309 | CEACAM16 | CACGTGTCCGTAGCCCACCT |
| 1310 | CEACAM16 | AACGTCACGCTGGTCGTCCA |
| 1311 | CEACAM16 | AGAGAGCTTGACCACGACTG |
| 1312 | CEACAM16 | GGCCGGCGCCTATCAGTGTG |
| 1313 | CEACAM16 | TCCGCTGGTTCTTCAACGGT |
| 1314 | CEBPB | ACCCGCGTTCATGCAACGCC |
| 1315 | CEBPB | CGAGTACGGCTACGTGAGCC |
| 1316 | CEBPB | TACGCGCTGCGCGCTTACCT |
| 1317 | CEBPB | CGATGTTGTTGCGCTCGCGC |
| 1318 | CEBPB | TGAAGTCGATGGCGCGCTCG |
| 1319 | CEBPB | AGGTAAGCGCGCAGCGCGTA |
| 1320 | CECR2 | ATCTCCACCCGTGTGCGAAG |

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|---|---|---|
| 1321 | CECR2 | TACCGCTGGGAGCTCGAAGA |
| 1322 | CECR2 | CCATTGGGTGAAGACAATTC |
| 1323 | CECR2 | GGATGCAGACAGTCTCCGTG |
| 1324 | CECR2 | TCCTGCAGTTTCTTCCGTTT |
| 1325 | CECR2 | TGCAGGAGGAGATTCTGTTG |
| 1326 | CENPF | CTGCAGACTGCGCAGCTTGT |
| 1327 | CENPF | GTTTCAGCTTGACAGTCTCG |
| 1328 | CENPF | CTGAATTCAGTTGTCCTTCC |
| 1329 | CENPF | GGTTGAAAATGAAAAAACCG |
| 1330 | CENPF | ACACCAAGTCAATATTATAG |
| 1331 | CENPF | ACAGCTTGACAAACTGAAGA |
| 1332 | CENPP | GCGCACGTTTAAACATCTCA |
| 1333 | CENPP | CTACAGAGACACAGATTATC |
| 1334 | CENPP | CAAGTTGAAATGTAACCATG |
| 1335 | CENPP | ACTTAATTCTGAGCATTCTG |
| 1336 | CENPP | ACCACTCCACAAAAAAATGC |
| 1337 | CENPP | AATTAAGTGAATTTGTGTCT |
| 1338 | CENPT | CTCTGGCTATCGTCCTTGTT |
| 1339 | CENPT | TGGGGGAAGCCGTTTCAAGC |
| 1340 | CENPT | ACTGGCTTCACTACCGACTC |
| 1341 | CENPT | GAAGTAGAGCCCTTACACGA |
| 1342 | CENPT | GGTTGGACCGCCTGCGGTGC |
| 1343 | CENPT | CTCTTCAACTCCATCGTGTA |
| 1344 | CENPV | CGGGAGCCATGCGGCGATCG |
| 1345 | CENPV | AGGTTGGACGCCGAGGACGT |
| 1346 | CENPV | TGAGGGCACTGTGCGGAGTA |
| 1347 | CENPV | CAAAACGAACTGCTCCACAG |
| 1348 | CENPV | AGGAATTCAATGGCAGCGAT |
| 1349 | CENPV | AGGAGCTTGAAGCGAGAAGC |
| 1350 | CENPW | ACTCGCACAAGCGTTTGTCC |
| 1351 | CENPW | GCATGTACTGGCCGCAGCAA |
| 1352 | CENPW | ATAAAGCGGAAGGCTCCCCG |
| 1353 | CENPW | AAAGAAGCCTCAACTTCGTC |
| 1354 | CENPW | GTAATTCTAAAGAAGAGCAG |
| 1355 | CENPW | TGTCGACCATAGTCTCCCAG |
| 1356 | CEP290 | CCTGCCCCGTCAAGAAGAAC |
| 1357 | CEP290 | AGATGCCACCTAATATAAAC |
| 1358 | CEP290 | TTAGATGAAAGCTCAAGAAG |
| 1359 | CEP290 | AATTACTCAGTCACTAATGA |
| 1360 | CEP290 | GTGACTGAGTAATTCTGAAA |
| 1361 | CEP290 | TTGGAAGAAGTAGAAAAAGC |
| 1362 | CES2 | CCTCTTTACTCTTGCCCCGC |
| 1363 | CES2 | CCATGAAGGCTCTAACCTGC |
| 1364 | CES2 | CAAAAACAAGCGCACCACCG |
| 1365 | CES2 | TCTACAGGACCTCACCGCAG |
| 1366 | CES2 | CAGCATGGAACCATCATACA |
| 1367 | CES2 | CTGTGACCAAGTTGACTCTG |
| 1368 | CETN2 | ACACTGATCTTAATAGAGGC |
| 1369 | CETN2 | GTTCAAAAATCTGAAACGCG |

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|---|---|---|
| 1370 | CETN2 | ATTGATGAAGCTGATCGAGA |
| 1371 | CETN2 | CGAAAAGATCAAAAGCTTCC |
| 1372 | CETN2 | CTTCAGTTCTTTAACATCTA |
| 1373 | CETN2 | GGGTGAGAACCTGACTGATG |
| 1374 | CFDP1 | GCCCCCAAGTACACAAGTTA |
| 1375 | CFDP1 | GACAAGTTCAAGTAAATTGT |
| 1376 | CFDP1 | AATACTCACCCTGACCCGGC |
| 1377 | CFDP1 | GCTGAAGGAACATTAGCCTG |
| 1378 | CFDP1 | GGATGCCAATTCAGAATCTG |
| 1379 | CFDP1 | TGATGTAAATGAATTAGTGA |
| 1380 | CFHR1 | CAGAAGCTTTATTTGAGAAC |
| 1381 | CFHR1 | AGAGAGTACGTTATGAATGT |
| 1382 | CFHR1 | CTTACCAGTGGACCTGCATT |
| 1383 | CFHR1 | ACAGAACCACCTCAATGCAA |
| 1384 | CFHR1 | GGTCCACCCCTCCCAAATGC |
| 1385 | CFHR1 | CAGCTGAATTTGTGTGTAAA |
| 1386 | CFHR4 | TGGTACTCGACTCTTGACCA |
| 1387 | CFHR4 | CGCAAAAAGTGTATCTGCCA |
| 1388 | CFHR4 | TTACTGAGGCATGGGACCGT |
| 1389 | CFHR4 | TAAGATTGTCCTGCAGCTGC |
| 1390 | CFHR4 | AAACCACATGCCATTACTCT |
| 1391 | CFHR4 | AAATACTTACTATAGCATGT |
| 1392 | CGB5 | ACCAAGGATGGAGATGTTCC |
| 1393 | CGB5 | CACCATGGTGGGGCAGTAGC |
| 1394 | CGB5 | GCTGTTGCTGCTGCTGAGCA |
| 1395 | CGB5 | TGAGAAGCCTTTATTGTGGG |
| 1396 | CGB5 | CTTCCAGACCCGCGTGCTGC |
| 1397 | CGB5 | GGTGTTGACGGTGATGCACA |
| 1398 | CGN | AGACCTCCTTCGAGACCAGC |
| 1399 | CGN | CATATGAAGGCCACCATCTA |
| 1400 | CGN | TTCAGTAACACCTCCTTAGC |
| 1401 | CGN | CCAGAACATGAAGCGCCTCT |
| 1402 | CGN | ACTAACCTTCCTCCTCACAG |
| 1403 | CGN | GGAGAAGATGCAGCCTCTAG |
| 1404 | CHAF1A | CTCGGGCCACTCGTCAGCTC |
| 1405 | CHAF1A | CGATGACATGTCAGACGATC |
| 1406 | CHAF1A | CCGACCTGTGGCGGCTCCCC |
| 1407 | CHAF1A | TGGTCTATCTTTGCAATCCA |
| 1408 | CHAF1A | AGTGCGGGGCGCCCGGCGCC |
| 1409 | CHAF1A | CCAGTTAAGAAGTTAATACA |
| 1410 | CHAF1B | TCCTGAAAAGCGATCTGCTC |
| 1411 | CHAF1B | TTTGGTATGACGAGCAAGAT |
| 1412 | CHAF1B | CAGATGCTGTCATCCTATTG |
| 1413 | CHAF1B | ATCATATGGGATGTCAGCAA |
| 1414 | CHAF1B | AGAAAAACGCACAACATTGA |
| 1415 | CHAF1B | TTTGCTGACATCCCATATGA |
| 1416 | CHD1 | ACCCAGAATCATCATCCGAC |
| 1417 | CHD1 | TTCTGATCCGCTATTAGATG |
| 1418 | CHD1 | CATCAAGCCTCATCTAATAG |

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|---|---|---|
| 1419 | CHD1 | AGCCAGTCGGATGATGATTC |
| 1420 | CHD1 | TTCCGATGACTCATCAAGTG |
| 1421 | CHD1 | GACCTCACTTGATGAGTCAT |
| 1422 | CHD1L | GTCGCCTGCATATGTTACAC |
| 1423 | CHD1L | TACCGGCCCGATGGAGCGCG |
| 1424 | CHD1L | AGCAGGACTTACGGCAGTGG |
| 1425 | CHD1L | GAAAACGTGACTCCTGTTTC |
| 1426 | CHD1L | CTTACTGCGGCTTCATACTG |
| 1427 | CHD1L | AGCCGCGGGGGCCAAGCGCC |
| 1428 | CHD3 | TCTTACCGCACCTCATGAAC |
| 1429 | CHD3 | CTTTGTAGTTGGTGAGCGTG |
| 1430 | CHD3 | GGCACTGAACTCTCTCCATT |
| 1431 | CHD3 | TCTAAGATGATGACCATCCT |
| 1432 | CHD3 | TTCTTCACACCCAATGCTGA |
| 1433 | CHD3 | TCAAAGATAAGGATGACATT |
| 1434 | CHD4 | TCGAACCCTCACCAACTACA |
| 1435 | CHD4 | TTGCGGATAGGCACCTCCAC |
| 1436 | CHD4 | CTCCTCACTGCCCGCCGAGC |
| 1437 | CHD4 | AATCCTCCTCTGAGAACACG |
| 1438 | CHD4 | GAAGGGGATGGCGTCGGGCC |
| 1439 | CHD4 | AGGTGGTGGTGCAACCTCAG |
| 1440 | CHD5 | CGACGTGGACTACCTGTTCT |
| 1441 | CHD5 | ACAGGTAGTCCACGTCGTCC |
| 1442 | CHD5 | CACAGGGAAAAAGTCATCGA |
| 1443 | CHD5 | CTTCTTCTTAGGAAGGCTCA |
| 1444 | CHD5 | TGAGCTATCAGAGAATGAAG |
| 1445 | CHD5 | GAAGAGAAGTCGGAGAGTGA |
| 1446 | CHD7 | CTCCAATGAAGGATCTACCC |
| 1447 | CHD7 | AAAGCGCTACACTGAAGACC |
| 1448 | CHD7 | TTCTCTAGAAAGGGCTCCGA |
| 1449 | CHD7 | TTAACTATATCAGTCCAGTC |
| 1450 | CHD7 | GAAGAGACGGTCCAGCAGAC |
| 1451 | CHD7 | TGTCTCTCAGCATTCCCCGT |
| 1452 | CHD8 | TGAATCGAAACGCATCACCC |
| 1453 | CHD8 | GGACATCGGCATGTTGTGCT |
| 1454 | CHD8 | TAGCACCATCACTCCTGTAG |
| 1455 | CHD8 | CACATCTGAATTATCAGATG |
| 1456 | CHD8 | CAGCTGGATAGTTACTACCT |
| 1457 | CHD8 | ACCAGGCAAGATAGTGTTAC |
| 1458 | CHDH | CACCCTGCTCACAAGCGTCT |
| 1459 | CHDH | AGGCCGAGACGCTTGTGAGC |
| 1460 | CHDH | GACCAATGCAGACCTTCCGC |
| 1461 | CHDH | CTTCCAGGCTTATGCCAGCA |
| 1462 | CHDH | CCAGGTAGGTGGCACACCAC |
| 1463 | CHDH | CCAGAACCTGCAAGACCACC |
| 1464 | CHEK1 | CTGGGACTTGGTGCAAACCC |
| 1465 | CHEK1 | CCCTCTTAGGTTTATCTGCA |
| 1466 | CHEK1 | AGTCATGGCAGTGCCCTTTG |
| 1467 | CHEK1 | GAGATTCTTCCATCAACTCA |

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|---|---|---|
| 1468 | CHEK1 | AATCTCTGAGCATCTGGTTC |
| 1469 | CHEK1 | TAAACCAGAAAATCTTCTGT |
| 1470 | CHEK2 | AAGAAGCCTTAAGACACCCG |
| 1471 | CHEK2 | AATGTGTGAATGACAACTAC |
| 1472 | CHEK2 | ATCATACTTAGACTGCAAAC |
| 1473 | CHEK2 | TGAATCCACAGCTCTACCCC |
| 1474 | CHEK2 | AGTGTTTCTTGCTGTATGTT |
| 1475 | CHEK2 | CAGGAGGATCAGATGACAGC |
| 1476 | CHI3L2 | GGATATGGGAGCAACCACCA |
| 1477 | CHI3L2 | CACCTGCCCAGAGAGACTTC |
| 1478 | CHI3L2 | AGTGGTCTTGCTGCTTCTCC |
| 1479 | CHMP3 | TGTTTAGGCTGGGATCATAG |
| 1480 | CHMP3 | AATCTTCACAAGACTTTGCA |
| 1481 | CHMP3 | CCAAGGAGATGATCAGGTCA |
| 1482 | CHMP3 | CTCATGGTGGCCTGAATCTC |
| 1483 | CHMP3 | AGGAAATGAGAGTTGTTGAC |
| 1484 | CHMP3 | ATTCTCTTTGAAATTACAGC |
| 1485 | CHMP5 | TTATACCATCCAGTCTTTGA |
| 1486 | CHMP5 | TGCCCAACAGTCATTCAACA |
| 1487 | CHMP5 | AAATCATCTTCATCCAGTTC |
| 1488 | CHMP5 | GATGAAGATGATTTAGAAGC |
| 1489 | CHMP5 | TCGAGAAATCTTCTTGTCAA |
| 1490 | CHMP5 | TGACAAGAAGATTTCTCGAT |
| 1491 | CHRAC1 | CGCTGCCTCTATCCCGCATC |
| 1492 | CHRAC1 | CATCATGAAGAGCTCCCCCG |
| 1493 | CHRAC1 | CTTTCCACTGCCGTGTCTGT |
| 1494 | CHRAC1 | GCCACCTATTCCTACAGACA |
| 1495 | CHRAC1 | TTTAGGAGTCAGCTTCATCA |
| 1496 | CHRAC1 | ATACCTGAAAATGCTTAAAG |
| 1497 | CHRM2 | GGCTGCAATAGCCGTACCAA |
| 1498 | CHRM2 | CGCTTGACTGGGTAGGTCAG |
| 1499 | CHRM2 | TACCCCAACTAATACCACCG |
| 1500 | CHRM2 | GACTAGGATGTTCCCGATAA |
| 1501 | CHRM2 | GAGGTGGCGGTTGACTTTAA |
| 1502 | CHRM2 | GTGTGACCTTTGGCTAGCCC |
| 1503 | CHRNA5 | GTAGTTTGCCGGTGGAGTCC |
| 1504 | CHRNA5 | TATTTCAAGACTACGAAAGA |
| 1505 | CHRNA5 | CCAGTACGAAAACAGTCATC |
| 1506 | CHRNA5 | AGTTAATGACAACAAACGTC |
| 1507 | CHRNA5 | ACTTGCAATATCTCAATTGG |
| 1508 | CHRNA5 | GTGTTCCTTCAGACTCTGTC |
| 1509 | CILP | TGGTCCGAGCCTCTAGCCGC |
| 1510 | CILP | GACTCGCACACGCATTTGCT |
| 1511 | CILP | TAGAGGCTCGGACCACTGAC |
| 1512 | CILP | AGCAAATGCGTGTGCGAGTC |
| 1513 | CILP | TGCCAAGCCTGCCGACACCC |
| 1514 | CILP | GCTGGACTCTTCTTACTGAC |
| 1515 | CILP2 | CACGCGGTTGCTCGCGGTTG |
| 1516 | CILP2 | TGGAAGCGCGCACCACGGAC |

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| 1517 | CILP2 | CTGTGTCGTCGCTGCGCACC |
| 1518 | CILP2 | AGGCCCAGTGCAGTCGCCAT |
| 1519 | CILP2 | TGAGGGCTGGCCGGTGTACA |
| 1520 | CILP2 | CCTCACCTCGGGCCCCCGCC |
| 1521 | CKM | CCCGTGGCGATCCGAGATGA |
| 1522 | CKM | TCACCCCTTCATCATGACCG |
| 1523 | CKM | GTAGACGATGTCATCCAGAC |
| 1524 | CKM | TCTGCAGCCCTACGCAGAAG |
| 1525 | CKM | GCAGCTTCTTGTAGAGTTCA |
| 1526 | CKM | CAATGACAACAAGAGCTTCC |
| 1527 | CLDN10 | GGCGTGCGTTACCGACTCCA |
| 1528 | CLDN10 | ACATGTCCAGGGCGCAGATC |
| 1529 | CLDN10 | GAACTGCGCAGGTAACGCGT |
| 1530 | CLDN10 | TGTGATGACCGTGCCGTCGA |
| 1531 | CLDN10 | TTTATCGGAGCCTCCGACTT |
| 1532 | CLDN10 | GGTTCCATATTTGCGCTCTT |
| 1533 | CLDN11 | GGGCTTCGTCACGAGCTTCG |
| 1534 | CLDN11 | TGGGCACTCTTCGCATGAGT |
| 1535 | CLDN11 | GGACCGAGGCAGCAATCATC |
| 1536 | CLDN11 | CGCCCTGATGATTGCTGCCT |
| 1537 | CLDN11 | GCGCCCTTGTTGCCACCATC |
| 1538 | CLDN11 | GGTGGGGATGGTGTAGCCGC |
| 1539 | CLDND2 | ACTGCGGATTCGGTGCGACG |
| 1540 | CLDND2 | CTGCTGCTGACCGCCTTGAT |
| 1541 | CLDND2 | CTACTGGACCCGCCAACAAG |
| 1542 | CLDND2 | TTTACCCGCGAGAATTGAGA |
| 1543 | CLDND2 | CGTGGTTGCATTCCTGCCAC |
| 1544 | CLDND2 | CAGTCTCACCGCCGAGGAAG |
| 1545 | CLLU1OS | ACTTACCAGTGGCAGTCTTA |
| 1546 | CLLU1OS | GAATGCCTTAAGACTGCCAC |
| 1547 | CLLU1OS | TCCCAGACTTGTACTTCCTA |
| 1548 | CLLU1OS | CGCTCTCACATATGCAGAGA |
| 1549 | CLLU1OS | CCTTCTGAAATCTCATAGTT |
| 1550 | CLLU1OS | GTACAAGTCTGGGAGATACT |
| 1551 | CLP1 | CTGTCCGAGACAAGTGTAGC |
| 1552 | CLP1 | ATATCTCGCCCAGGAGTGAC |
| 1553 | CLP1 | TCGCTCTAGTTCAAATTTAG |
| 1554 | CLP1 | GATGCGGAGGCAAGCGGAAA |
| 1555 | CLP1 | GCAGCACAGTGCGTACAAAG |
| 1556 | CLP1 | GGGTGTGGTGGAGCGCTCCA |
| 1557 | CLUAP1 | CTGCCTTACTGCGGAGGTCG |
| 1558 | CLUAP1 | AATTTCCGTACACCCAATTT |
| 1559 | CLUAP1 | GATTTCAGACGCAAGCTGCC |
| 1560 | CLUAP1 | AACAAGTTCAAGTTTGATCT |
| 1561 | CLUAP1 | GGAGGGCTCTGAAATAGTAG |
| 1562 | CLUAP1 | ATACCCTCGACATATTTCTA |
| 1563 | CMPK2 | CGTGGCATCCAGTCCTTCGA |
| 1564 | CMPK2 | ACCTACCTGTCTACAATCAC |
| 1565 | CMPK2 | CACAAACTTCACTGCCGAGC |

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|---|---|---|
| 1566 | CMPK2 | GGTATAAGGTTCCTCCCAGC |
| 1567 | CMPK2 | CATCAAAGATCTTCCTCCAC |
| 1568 | CMPK2 | CCACTGGTACACAGGGTGAT |
| 1569 | CMTM4 | GCGGGCTCGGATGTAGTCAT |
| 1570 | CMTM4 | CTTTATTGCTTCAATCGTAC |
| 1571 | CMTM4 | TGACTACATCCGAGCCCGCA |
| 1572 | CMTM4 | CTGTCAGATTCCAGTTGATC |
| 1573 | CMTM4 | ACTCCACAAACGTAACAGTA |
| 1574 | CMTM4 | CTTTAGGATTTGGTCAACAC |
| 1575 | CMTM7 | CTCCGGCTACCAGTCCGCTC |
| 1576 | CMTM7 | CGCGCAATGTCGCACGGAGC |
| 1577 | CMTM7 | CCCCTCCAAGGGGCTCGCGC |
| 1578 | CMTM7 | GCACGCGGTAGAAGCGGAAG |
| 1579 | CMTM7 | GATCATTATCAAGTCGCAAA |
| 1580 | CMTM7 | TCGTGTGTAACCCAGTCCAC |
| 1581 | CMTM8 | GGTAAATCACTGTATGGTCC |
| 1582 | CMTM8 | AGGCACTGCCGTTAAAGCAC |
| 1583 | CMTM8 | GCAGCAGCTTCGCCTACGAC |
| 1584 | CMTM8 | ACATAACAATGACCTACACC |
| 1585 | CMTM8 | TCACGATCTCGGCCACGATG |
| 1586 | CMTM8 | TGTATTTCCAGCGTAGCAGA |
| 1587 | CNDP2 | GCCTGCTCGCCGACGACTTC |
| 1588 | CNDP2 | CAGCATGACGTTCTTGCCCG |
| 1589 | CNDP2 | CCGTCATCCGCTGACCCCAC |
| 1590 | CNDP2 | CATGTTCGGCACGAGCCTGA |
| 1591 | CNDP2 | CGGAGAAGAGAGGCGAAATC |
| 1592 | CNDP2 | AGCGGGATCTCCGAGCCATC |
| 1593 | CNIH2 | GTATCACTTACTGCCCGCGC |
| 1594 | CNIH2 | CTTCAAGAACCCCATCGACC |
| 1595 | CNIH2 | GTCCCAGAATACTCCATCCA |
| 1596 | CNIH2 | CCTTCTTCTATTACCTGTAC |
| 1597 | CNIH2 | CCTGTACAGGTAATAGAAGA |
| 1598 | CNIH2 | TGACACTGACCTTCCTCAGG |
| 1599 | CNNM3 | CGACACTCCATAGTACGTGA |
| 1600 | CNNM3 | CTTCACGTACTATGGAGTGT |
| 1601 | CNNM3 | GGTAGTCTTCAGACTCGTCC |
| 1602 | CNNM3 | TTCCATCTTAGGAGACACCG |
| 1603 | CNNM3 | TGAGGTTTGACGAGAGCAAC |
| 1604 | CNNM3 | GGCTGCGCTGGTACAGGTAG |
| 1605 | CNOT1 | GAATCTTGACTCGCTCTCGC |
| 1606 | CNOT1 | TCTTGGTTAAATTGTCCACC |
| 1607 | CNOT1 | GACAGCGTCGAGATAAAATT |
| 1608 | CNOT1 | CCAACCTTCTGATAGTGCAA |
| 1609 | CNOT1 | AGTGGCGATGGTAAAAGCAG |
| 1610 | CNOT1 | AATAAATGCCTGTCTGCCTC |
| 1611 | CNPY3 | AGTCTCGTTCCACAGCTCAT |
| 1612 | CNPY3 | GCCCGTGCCAATCACCTCCT |
| 1613 | CNPY3 | CGGCAGCAATCGATTTGCCA |
| 1614 | CNPY3 | CTTTGAGACATTACACAACC |

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|---|---|---|
| 1615 | CNPY3 | CTGCGCCAACCACGTGCTGA |
| 1616 | CNPY3 | CTTGGCAAATCGATTGCTGC |
| 1617 | CNTD1 | GAGGCCGATCGTGGCCTCAT |
| 1618 | CNTD1 | TGCAGCCGCACCCACGATCT |
| 1619 | CNTD1 | GCTCCTTACTTTGTTTCGGA |
| 1620 | CNTD1 | CTACAGGTTTATGGTAAAAC |
| 1621 | CNTD1 | CCAGACACCATTGTTCAGAC |
| 1622 | CNTD1 | TTTCTAGGATTTCTACAGCC |
| 1623 | COL14A1 | ACCAGTACCGCATCTTGCGC |
| 1624 | COL14A1 | CTTCTTGTGACTCCAACTTC |
| 1625 | COL14A1 | TACATTATATCTTAACCTTG |
| 1626 | COL14A1 | TATTTCTGCACCATTGTCCA |
| 1627 | COL14A1 | CAGTGTTCTGCAGATTCAGC |
| 1628 | COL14A1 | CTTCTGAATTGGCCTTGAGC |
| 1629 | COL15A1 | GCGGATCATCCTCTACTACA |
| 1630 | COL15A1 | TGGCGAAGAGCACGCCACCA |
| 1631 | COL15A1 | GAGCTCACCGAGGACTCTTC |
| 1632 | COL15A1 | CGGGGTGCACGGTGAGCTGC |
| 1633 | COL15A1 | ACTCACCGAGGCTTGAGTGT |
| 1634 | COL15A1 | CAGGCATCTGGAGAGACCAG |
| 1635 | COL20A1 | CAAACTCCCTCCGAGCTAGC |
| 1636 | COL20A1 | CTGTAGCAAGCGGTCTCCTG |
| 1637 | COL20A1 | CTACCCAGGGGACTCGGAAC |
| 1638 | COL20A1 | GGGGAGCGGCCTCGGCTACC |
| 1639 | COL20A1 | TCCGGAGACCCTGCACACCT |
| 1640 | COL20A1 | CTTGAACTTGCTCTCTTCCC |
| 1641 | COL4A4 | CAAGGACTTGGTCAATCTGA |
| 1642 | COL4A4 | CTCTGCACATAGTACTAATG |
| 1643 | COL4A4 | GAGCAATCTCTTCCTCCACA |
| 1644 | COL4A4 | TTGCCACTGTGTTCCTGAAA |
| 1645 | COL4A4 | CTTCAGATTGACCAAGTCCT |
| 1646 | COL4A4 | GGATACTCACCAGGGACCTG |
| 1647 | COL6A3 | GATCGCTTTCGACTCCTCCC |
| 1648 | COL6A3 | CTAGAGCAGAGCCCGTGTAC |
| 1649 | COL6A3 | GAAGCACTCCATCCTCGATC |
| 1650 | COL6A3 | TGTACTGAGCCACCGCAATT |
| 1651 | COL6A3 | TCTTACCTGCTTGCTGCTGC |
| 1652 | COL6A3 | CATGCCCAGCAGCAGCAAGC |
| 1653 | COL7A1 | GCGGAAATTGCTGCGGCCAA |
| 1654 | COL7A1 | TGGCCGCAGCAATTTCCGCG |
| 1655 | COL7A1 | TACTGCCTAGGATGACGCTG |
| 1656 | COL7A1 | CATCCGTGAGCTTAGCTACA |
| 1657 | COL7A1 | CCCCCTTGTAGCTAAGCTCA |
| 1658 | COL7A1 | CTGGTGGCCGCGCTCTGCGC |
| 1659 | COLGALT1 | GGTGGCTACGGACCACAACA |
| 1660 | COLGALT1 | CCATAGGTCCTACCCGGACG |
| 1661 | COLGALT1 | GCATGTCATGAAGTTGCGCC |
| 1662 | COLGALT1 | GAAGAGTTTGTACCATTCCG |
| 1663 | COLGALT1 | TCTTGTTCTCAGCGATGAGC |

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|---|---|---|
| 1664 | COLGALT1 | CGCAGCCCGGGAATCCAGCA |
| 1665 | COMMD10 | AGAATCCGAGTGAGCAACCG |
| 1666 | COMMD10 | CTGAAGCATTTGTCAATACG |
| 1667 | COMMD10 | GATTTCCACGGTTGCTCACT |
| 1668 | COMMD10 | AGGGAGCCAGAATTCTCTGC |
| 1669 | COMMD10 | ATTCCACAAGAACTTTCTCC |
| 1670 | COMMD10 | ATGATATTGTTTCAAGAACT |
| 1671 | COMMD3-BMI1 | CTTGAAACATATCGACCCAG |
| 1672 | COMMD3-BMI1 | GAATTCCCTAGAAATCCTAC |
| 1673 | COMMD3-BMI1 | AGCTGCAACTTACATACTAG |
| 1674 | COMMD3-BMI1 | ACAGTACCTACCTTCCCAGT |
| 1675 | COMMD3-BMI1 | CTGCAACTAAAACTAATCTC |
| 1676 | COMMD3-BMI1 | GAGCTGACAAGTCAACTCTA |
| 1677 | COX15 | ACAACTCTTACCTTGTGCGG |
| 1678 | COX15 | AGGCGGTACTGACTGACCCG |
| 1679 | COX15 | ATCCTAAGGTTGACAGAGTC |
| 1680 | COX15 | GAAGGGGAATTCTCCGAGAG |
| 1681 | COX15 | CTGAGCGGGTGGTGGGCCGA |
| 1682 | COX15 | AATGCCAATCTACCATCGAG |
| 1683 | COX17 | CCAAGAAGGCGCGCGATGCG |
| 1684 | COX17 | CCACGCATCGCGCGCCTTCT |
| 1685 | COX17 | ACACTGTGGACATCTAATTG |
| 1686 | COX17 | AAGGAATGCATGAGAGCCCT |
| 1687 | COX17 | GAAGCCCTGCTGCGCTTGCC |
| 1688 | COX17 | TTCTTCTCCTGAGACTCAGG |
| 1689 | COX7B2 | CCATTCTATTCCAATCTGAG |
| 1690 | COX7B2 | GTGTTTACAGCCACTCAGAT |
| 1691 | COX7B2 | GAGACTGCTTAGTGCATTTC |
| 1692 | COX7B2 | AACACAGAAAGCAGTTCCAC |
| 1693 | COX7B2 | CTGCTTTCTGTGTTGCTACA |
| 1694 | COX7B2 | TACTGATGTTTCCACTCTTT |
| 1695 | CPA4 | CGGCAATGTTGTCCATCTCG |
| 1696 | CPA4 | GCTTCAGATTTACCACGAGA |
| 1697 | CPA4 | GACATCCACAGGCCGATTGA |
| 1698 | CPA4 | AGAGTACGCAGTGACAATTG |
| 1699 | CPA4 | AGCAGTAATAACTTCAACTA |
| 1700 | CPA4 | CATCATCTTCATTGTCTAAA |
| 1701 | CPEB1 | ACGGGAAGATTCTTGCGCAG |
| 1702 | CPEB1 | TCTGCGCAAGAATCTTCCCG |
| 1703 | CPEB1 | TATAGTTCCGGGGAGGAAGC |
| 1704 | CPEB1 | TCTTACCAGCGGGAACGCCA |
| 1705 | CPEB1 | CGGCCCCATGGCGTTCCCGC |
| 1706 | CPEB1 | AAACACCTTGCAAGAGTAGA |
| 1707 | CPNE3 | CAAGAAGCTAACTCGACCAC |
| 1708 | CPNE3 | GTAACTTACAGGTGAGCTTC |
| 1709 | CPNE3 | AAAACAACTTGAATCCTGTT |
| 1710 | CPNE3 | TCTCTTAACTCACTGTGTTA |
| 1711 | CPNE3 | ATGAAAACTGGCAGACCTGC |
| 1712 | CPNE3 | TGTTATGATTATGACAATGA |

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|---|---|---|
| 1713 | CPNE6 | AGGTGCACTCCGTAGAGCCG |
| 1714 | CPNE6 | GTTCCACGTGTTCGATGCCG |
| 1715 | CPNE6 | TGAGCCCCCAACCATGACGC |
| 1716 | CPNE6 | GTAGAGCTTGAGCAGCACGC |
| 1717 | CPNE6 | TGCGGGCAAGTCCACCATCA |
| 1718 | CPNE6 | CCAGATTGTGTCACAAACCA |
| 1719 | CPT1A | TACGTAATTTGTAGCCCACC |
| 1720 | CPT1A | GCCAAGATCGACCCCTCGTT |
| 1721 | CPT1A | TGCAAAAATCAATCGGACTC |
| 1722 | CPT1A | GACATCGCTGCCTCGCCTGC |
| 1723 | CPT1A | GCAGGCGAGGCAGCGATGTC |
| 1724 | CPT1A | ATAATCCCAGTATCTACAGT |
| 1725 | CRABP2 | CACAACGTCATCCGCCGTCA |
| 1726 | CRABP2 | TCACTCTCGGACGTAGACCC |
| 1727 | CRABP2 | CAACTGGAAAATCATCCGAT |
| 1728 | CRABP2 | ACCAGAGAACTGACCAACGA |
| 1729 | CRABP2 | CAGGATCAGTTCCCCATCGT |
| 1730 | CRABP2 | CGAGGAATTGCTCAAAGTGC |
| 1731 | CREBBP | AGCGGCTCTAGTATCAACCC |
| 1732 | CREBBP | GAATCACATGACGCATTGTC |
| 1733 | CREBBP | CCCGCAAATGACTGGTCACG |
| 1734 | CREBBP | TCGACAATGCGGGAGCGAGC |
| 1735 | CREBBP | CAGCGAGCCTATGCTGCTCT |
| 1736 | CREBBP | ATTTGGGTTACTTAAAGAAG |
| 1737 | CRK | TGGTGCTCGAGTCCCGCACC |
| 1738 | CRK | TCCAATCAGAGCCGATACTG |
| 1739 | CRK | CGAGTCGAAGTTGCCCGCCA |
| 1740 | CRK | CGAGCCCTCTTTGACTTTAA |
| 1741 | CRK | AGGAGCGGAGTAGCTGGTAC |
| 1742 | CRK | CAAACTCTTGATCTCCTATT |
| 1743 | CRKL | CCCGATCTTAAAACGGCGGT |
| 1744 | CRKL | TATGGGGCCGGTGTCTCGCC |
| 1745 | CRKL | AGGTCTTCGGCATCATTCCC |
| 1746 | CRKL | GGTTGAGCGTATGCATGAGC |
| 1747 | CRKL | CGTTCACTTCGCCTTCCCAC |
| 1748 | CRKL | GTGACATCGTGAAAGTCACA |
| 1749 | CRX | GCTCGGAGACCCATAGGCGG |
| 1750 | CRX | GGGGTCTAGGCCGCTGAAAT |
| 1751 | CRX | CCAAGGCGTTGACAGAATAG |
| 1752 | CRX | CCACTATTCTGTCAACGCCT |
| 1753 | CRX | CCCAGACGTCTATGCCCGTG |
| 1754 | CRX | AGATCAATCTGCCTGAGTCC |
| 1755 | CRYZ | CTCTGTGATTGAACACTTCA |
| 1756 | CRYZ | TGCAGTGCCTGTGTGAAAGC |
| 1757 | CRYZ | AGCCATAAGCTCTAGCAATT |
| 1758 | CRYZ | ACTCTCTCCAGCTTTCACAC |
| 1759 | CRYZ | AGATAATGCATCTGCTTTCA |
| 1760 | CRYZ | TGCCAAATTGCTAGAGCTTA |
| 1761 | CSMD3 | ACACCGTCAATAAAAAGACG |

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|---|---|---|
| 1762 | CSMD3 | TTAGCGCATCTTCGCTTGCC |
| 1763 | CSMD3 | AACCTTGTCCTAAAGTTTGT |
| 1764 | CSMD3 | ATCCTCATCCTACAAACTTT |
| 1765 | CSMD3 | ACGTAGTGAGAACACAGATT |
| 1766 | CSMD3 | AGCACTAACTGCAAAATCAC |
| 1767 | CSTF3 | GTCCGAAGAGTTTATCAACG |
| 1768 | CSTF3 | GTAACTTGGTAGTTTACCCT |
| 1769 | CSTF3 | TGATCAACATTGAACAGCTC |
| 1770 | CSTF3 | TCAAGCATATGACTTTGCAC |
| 1771 | CSTF3 | TTCATATGTCCGAGAAACCA |
| 1772 | CSTF3 | AATGGAAATTATGTCCTATC |
| 1773 | CT62 | TGCAGCACAGCGTCTGCACG |
| 1774 | CT62 | GGGTGGTGACAGTCTTCTAT |
| 1775 | CT62 | GAAGACTCCCTGACACTTCA |
| 1776 | CT62 | TCAAGTAGAGAGTCAGCCCC |
| 1777 | CT62 | AAGGATTCCCATGAAGTGTC |
| 1778 | CT62 | CTTGACCTGTAACCCACAAC |
| 1779 | CTCF | CGATCCAAATTTGAACGCCG |
| 1780 | CTCF | TACACTGGCGTAATCGCACA |
| 1781 | CTCF | ATGCCGAACCAATTCTCCAC |
| 1782 | CTCF | CGTCACATTCGCTCTCATAC |
| 1783 | CTCF | CATAGCCCGAAAAAGTGATT |
| 1784 | CTCF | TTTGCAGTTACACGTGTCCA |
| 1785 | CTDSPL | GGAACACACCCCAGCGGTCT |
| 1786 | CTDSPL | CCCCAGTGTGCTTCCGCCAC |
| 1787 | CTDSPL | GTGAAGGACCTGAGTCGCCT |
| 1788 | CTDSPL | TCTTTAAGCTGACGTTGCAC |
| 1789 | CTDSPL | ATAGTTCCATCGATTTCAAC |
| 1790 | CTDSPL | AATCGATGGAACTATACATC |
| 1791 | CTNNB1 | GAAACAGCTCGTTGTACCGC |
| 1792 | CTNNB1 | AGAACGCATGATAGCGTGTC |
| 1793 | CTNNB1 | AATGCAGTTCGCCTTCACTA |
| 1794 | CTNNB1 | AAAATGGCAGTGCGTTTAGC |
| 1795 | CTNNB1 | AGTGAAGGCGAACTGCATTC |
| 1796 | CTNNB1 | CTCCTTCTTGATGTAATAAA |
| 1797 | CTR9 | GGCAGCGTATTATGTACAAC |
| 1798 | CTR9 | ACTTGACTTCGATCAGTTAC |
| 1799 | CTR9 | GGCCACCTTGTTGTATACAA |
| 1800 | CTR9 | AGCCTGCTTCTGCCTACTTG |
| 1801 | CTR9 | AATAATATTCCAGCCCTTCT |
| 1802 | CTR9 | CTGATAACTTCATCTCCCTC |
| 1803 | CTRB2 | GCCATCCACCCTGTGCTCAG |
| 1804 | CTRB2 | CACCTGCAGGGACACCTGCC |
| 1805 | CTRB2 | AAAACCGGCTTCCACTTCTG |
| 1806 | CTRB2 | GTCCTCACCTGACCCCGCAG |
| 1807 | CTRB2 | TCTGCCCAGGACCTCCGACG |
| 1808 | CTRB2 | TGGGTACCTTGGCGATCTTC |
| 1809 | CTSE | GGAACCCCTCATCAACTACT |
| 1810 | CTSE | TGGGCTAGTGCAGTACACAG |

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|---|---|---|
| 1811 | CTSE | GTTCACCGAGTCCTGCTCAA |
| 1812 | CTSE | CAGTCACCAAGCAAGCTTAC |
| 1813 | CTSE | TCTCCATGTAGTAACCCAGA |
| 1814 | CTSE | TTCACTGTCATCTTCGACAC |
| 1815 | CTSG | GGTCGTAGGAACCGAAGATG |
| 1816 | CTSG | GATCTGAAGATACGCCATGT |
| 1817 | CTSG | TCGGTTCCTACGACCCCCGA |
| 1818 | CTSG | GTCTCCTATGGAAAGTCGTC |
| 1819 | CTSG | GCACAAAGTCTTCTCGCACC |
| 1820 | CTSG | TACCTACAGGGGGATTCCGG |
| 1821 | CTU2 | CCCGTTGTGGTGATACGAGC |
| 1822 | CTU2 | TCTTACCTGGGCCGCGGCGC |
| 1823 | CTU2 | CTACGGGGAGCCGGCGCCTG |
| 1824 | CTU2 | GGGGCCTTCGTCCAGCTCCA |
| 1825 | CTU2 | CTCAAGAACCTGCCAGACCA |
| 1826 | CTU2 | TCACCTGCAGAAGGCATCTC |
| 1827 | CUBN | TTTGTATCTGTCCCCCACAG |
| 1828 | CUBN | GACCTACCTGCTGCAAGCCT |
| 1829 | CUBN | AGATGACTCACCTTCCACTG |
| 1830 | CUBN | AATCTATCAGCTTAATTCCA |
| 1831 | CUBN | GAAGATATTATAGAGTTAAA |
| 1832 | CUBN | GATCTTGAGAGAAAATTCCA |
| 1833 | CUL2 | TTTGACGACAATAAAAGCCG |
| 1834 | CUL2 | AATACGTCGAAAGAGCAACA |
| 1835 | CUL2 | CACCACCATAGCCATACTGA |
| 1836 | CUL2 | TCATGTTCGGCATTTGCATA |
| 1837 | CUL2 | AGATATCTATGCTTTATGTG |
| 1838 | CUL2 | AGATATGAATGAACCACTTA |
| 1839 | CUL3 | ATGTCAGTTCACGTCAAAAC |
| 1840 | CUL3 | GAGCATCTCAAACACAACGA |
| 1841 | CUL3 | TTATTTAGTCGTGTGCCAAA |
| 1842 | CUL3 | CTTACCTGGATATAGTCAAC |
| 1843 | CUL3 | GACCTAAAATCATTAACATC |
| 1844 | CUL3 | TCTGCAGACATTTCCAAAAA |
| 1845 | CWF19L2 | GTGCGAAGAGTATCGAAGAG |
| 1846 | CWF19L2 | CTTTACGATGGCAACAAGTA |
| 1847 | CWF19L2 | GTAAAGAACTTAAGCGACTT |
| 1848 | CWF19L2 | GAGAATTGAACAGTTCTCAC |
| 1849 | CWF19L2 | AGGTACCTGGCGCAACACCT |
| 1850 | CWF19L2 | AAGAACAGACCCGGAATGCC |
| 1851 | CXXC4 | CGCGCATCGGCATGTCCCCC |
| 1852 | CXXC4 | GGCCGCGTTGTCGCAGTTCC |
| 1853 | CXXC4 | CCAGCGCTGAAGCATTCCGA |
| 1854 | CXXC4 | AATGCTTCAGCGCTGGGAAC |
| 1855 | CXXC4 | GGACATGCCGATGCGCGCGG |
| 1856 | CXXC4 | GGTGGTGATGCGCGCGATCT |
| 1857 | CYP21A2 | ATCATCTGTTACCTCACCTT |
| 1858 | CYP21A2 | GAGGTAACAGATGATGCTGC |
| 1859 | CYP21A2 | CCCTTACAGGTAAGTGGCTC |

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|---|---|---|
| 1860 | CYP21A2 | TGGTGGTGCTGAACTCCAAG |
| 1861 | CYP21A2 | CAGGTCCTCACCCTGAGAAA |
| 1862 | CYP21A2 | TGCCTATTACAAATGTATCC |
| 1863 | CYP4V2 | CATACCTTGTAAGAAGTCCT |
| 1864 | CYP4V2 | ACATGCCGCTGCTGAAGCTC |
| 1865 | CYP4V2 | CCGACCCAGAGCTTCAGCAG |
| 1866 | CYP4V2 | CTCACCACAGATGATATCTA |
| 1867 | CYP4V2 | TGTGCCTTAGATATCATCTG |
| 1868 | CYP4V2 | TTGGCCTAGGACTTCTTACA |
| 1869 | CYP7B1 | TTCTGCCGTGTCCCAACTTG |
| 1870 | CYP7B1 | CCAACCGCTCCAGCGAAAAG |
| 1871 | CYP7B1 | ACTTACGAAAAGACCCCTTA |
| 1872 | CYP7B1 | GGAGAAATATTATGTGCACG |
| 1873 | CYP7B1 | GAGGCGCTTACCTGGTGCGC |
| 1874 | CYP7B1 | GGTGAGCCTCCATTGATAAA |
| 1875 | CYSLTR1 | TCTGGGTACATAAGTCACGC |
| 1876 | CYSLTR1 | CCTTAGAATGCAGAAGTCCG |
| 1877 | CYSLTR1 | CCACGGACTTCTGCATTCTA |
| 1878 | CYSLTR1 | ATGGTACGTTGAATATGATA |
| 1879 | CYSLTR1 | CATACAAAGCATAGGTGCTG |
| 1880 | CYSLTR1 | GGAAGTCATCAATAGTGTCA |
| 1881 | CYYR1 | CGACCCGCGTGGGCATCCTC |
| 1882 | CYYR1 | ATTCCCAATATAAGCGTAGT |
| 1883 | CYYR1 | CGGCTTGGATGGACGCTCCG |
| 1884 | CYYR1 | TGCTCCTACTACGCTTATAT |
| 1885 | CYYR1 | AACTTCGGAAGCAAGACCCC |
| 1886 | CYYR1 | GATTATTTCCTTGCGTTTCC |
| 1887 | DAD1 | GCGTGCAGTTATGTCGGCGT |
| 1888 | DAD1 | GTAACCGAACTGCAGCGCCC |
| 1889 | DAD1 | GTGGGTTGATCTGTATTCTC |
| 1890 | DAD1 | CTCGCTCTGGGGAGATGCCT |
| 1891 | DAD1 | GTTCGGTTACTGTCTCCTCG |
| 1892 | DAD1 | TGTGGGGAGTTTCATCCTAG |
| 1893 | DAND5 | GTATGCCTGCTCGCAAGCGT |
| 1894 | DAND5 | GGTGCCCAACGCTTGCGAGC |
| 1895 | DAND5 | CACCCACTCACCTGAACGAA |
| 1896 | DAND5 | AGTGATCCAGGGGATGTGTA |
| 1897 | DAND5 | TGGATATCTTCACCCGTCGA |
| 1898 | DAND5 | CAGCTCAGCCTCCCGTCGAC |
| 1899 | DAXX | GAGCAGCGCATCCCCTACCG |
| 1900 | DAXX | CGAAGCACATCCCCATAGTC |
| 1901 | DAXX | GACCTCATCCAGCCGACTCA |
| 1902 | DAXX | CCCGGCGCCTTCGGGAAAAC |
| 1903 | DAXX | GGTTCTTCTGACAGTAACGA |
| 1904 | DAXX | AGGCGTCTCTCCTCACAACT |
| 1905 | DAZAP2 | TCAAGATCACGACCGAGAGC |
| 1906 | DAZAP2 | CGTCCGAGCTTTGTGCACCC |
| 1907 | DAZAP2 | AGACAACGGTGATAACAACT |
| 1908 | DAZAP2 | TCCAGGAAATGCGGCTGACA |

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|---|---|---|
| 1909 | DAZAP2 | GGTGGATAGATGGGACCGAC |
| 1910 | DAZAP2 | TCGGTATAGGGTGGAGCCTG |
| 1911 | DBF4 | TTATAGGTGTGTTTAAGCAG |
| 1912 | DBF4 | TTTGATAATATACTATTTGA |
| 1913 | DBF4 | GTAAAAATTCTTCATATTGA |
| 1914 | DBF4 | ATTAGTTGAAAAAGCTATCA |
| 1915 | DBF4 | TATTATCAAATGCCTTGTCA |
| 1916 | DCAF10 | ATGTTGATTTCAACGTCCTC |
| 1917 | DCAF10 | ACAAGACTCTTAGTAACATC |
| 1918 | DCAF10 | ATGACACTACAATAGCACTA |
| 1919 | DCAF10 | TCACGAGCCTCTCAAAGAGA |
| 1920 | DCAF10 | ACCACTTCATCAAGTTCATC |
| 1921 | DCAF10 | CTAAAGACTTAGTTAAGTCA |
| 1922 | DCAF11 | CCTACCTGGTGCAACATTCG |
| 1923 | DCAF11 | GGGGATCGATACAACCCACC |
| 1924 | DCAF11 | GGCTGGCCTGCGTCGGAGTG |
| 1925 | DCAF11 | CCTCTTCCTCACTCCGACGC |
| 1926 | DCAF11 | TCACTCGAGACTGTTCTCCA |
| 1927 | DCAF11 | GAGAACGGGGCCTCTGCCAT |
| 1928 | DCC | GACTTCCTCGCCTCGTAACC |
| 1929 | DCC | AAATTCCAATGTCCCCCGGT |
| 1930 | DCC | GCAGATCAGCCGACTCCAAC |
| 1931 | DCC | GCGAGGAAGTCATCCAACTC |
| 1932 | DCC | GTCTAAAAAGTATTCTTTAT |
| 1933 | DCC | AATGTGACAGATGATGACAG |
| 1934 | DCST1 | CCTACTAGTACCCAAGATGC |
| 1935 | DCST1 | GCGCCACAGGAACCAGCTAC |
| 1936 | DCST1 | CGCCTTGGCTGCCATCTATG |
| 1937 | DCST1 | GCAGTGACAGGAAACTCGCC |
| 1938 | DCST1 | GACATTAAACATCATCAGAA |
| 1939 | DCST1 | GGCTGCCAGTCTCCTGTAGC |
| 1940 | DCTN4 | TGAGCGAGATCGCAAGAAAC |
| 1941 | DCTN4 | TGCTCGTGGCCCGAGTAGAG |
| 1942 | DCTN4 | TCGCTGGACGTCTAGAGATG |
| 1943 | DCTN4 | ACGTAGAAACTATATGCCTC |
| 1944 | DCTN4 | TTACTTACCCGTTGTGTGTG |
| 1945 | DCTN4 | CTGAAAATCCTCACACACAA |
| 1946 | DDB1 | GGGGCTTCGGCCCGTCAAAG |
| 1947 | DDB1 | CCTCACCGTGCTATTGATGC |
| 1948 | DDB1 | GAAAGGGGCCGTGTACTCTA |
| 1949 | DDB1 | CTCGAGACTTTAATCCCAAC |
| 1950 | DDB1 | GTGCACCTTCAAAGGTGTGT |
| 1951 | DDB1 | ATACATGCCCACCTCTTTGA |
| 1952 | DDB2 | CCGAGATTGTATTACGCCCC |
| 1953 | DDB2 | TGTGTCTGCTAGTAGCCGAA |
| 1954 | DDB2 | ATACAATCTCGGAGGTCTTC |
| 1955 | DDB2 | CACCATGCCGCAGCATCGTC |
| 1956 | DDB2 | CTTTGCCGTCCATGTTCAGC |
| 1957 | DDB2 | ACTAGGCTGCAAGACTTTAA |

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|---|---|---|
| 1958 | DDC | CCTCTAGATGGTTGCCACCC |
| 1959 | DDC | AGCAGCATGTTGTGGTCCCC |
| 1960 | DDC | CAGGGCTTATCACTGACTAC |
| 1961 | DDC | AATTCACCAATAGCCATTTG |
| 1962 | DDC | TCAACTTTAATCCCCACAAA |
| 1963 | DDC | GACTTCTAAGAGATTGTCAA |
| 1964 | DDIT4L | GCTCCGTTGAGGAAAGCCGC |
| 1965 | DDIT4L | AACACAACCTCGCAAGCCGC |
| 1966 | DDIT4L | CCGTTGACCATGGTTGCAAC |
| 1967 | DDIT4L | CAAACTGCCAGTTGCAACCA |
| 1968 | DDIT4L | TCCTGAACCCAACCTCAACG |
| 1969 | DDIT4L | AGTAGAGGTCGCTTCTCCTC |
| 1970 | DDX56 | GTCGCGACCTACGCTGATCC |
| 1971 | DDX56 | CTCCTAGGCTGTCACCGATC |
| 1972 | DDX56 | ATTCTTACAGACAGGTCCGG |
| 1973 | DDX56 | CGTCCACCACCAAAAGCTCC |
| 1974 | DDX56 | CTCACTGCCTGTTCTACCAC |
| 1975 | DDX56 | GGAGCTGATATTACATAACC |
| 1976 | DDX6 | TCTCTAGACCTGGTGATGAC |
| 1977 | DDX6 | AGTGCCATTATTGATTGTGT |
| 1978 | DDX6 | TAGGATGTGACCTCCACAAA |
| 1979 | DDX6 | TAACATACCTGAATAGGAGA |
| 1980 | DDX6 | GTGAAACCCACTGGTGGCCC |
| 1981 | DDX6 | CTTGTATATTGTCCTTCTTC |
| 1982 | DEPTOR | CAAGTATGAGCGCACCTTCA |
| 1983 | DEPTOR | CACGATCTTGATCTCCTTGC |
| 1984 | DEPTOR | TGATGCCATGCTCCATAAGC |
| 1985 | DEPTOR | TCAAGATCGTGTCTGCAGTG |
| 1986 | DEPTOR | GCCTTACCGTAGCTGTTCCC |
| 1987 | DEPTOR | GAGTGGCGGGGCGCAGCAAA |
| 1988 | DESI1 | GGAGCCGCCGAATCTCTATC |
| 1989 | DESI1 | TACGTGTACGACCTGTCCAA |
| 1990 | DESI1 | CTCATCCTTGTGCACAACTA |
| 1991 | DESI1 | GAGTTCTTCTTCGGCAGTGG |
| 1992 | DESI1 | ACCGGAACAGGGACTCCCCC |
| 1993 | DESI1 | TCTCTCCACAGGGAAACAAC |
| 1994 | DGCR8 | GACAGCGACCATCCGTCCGA |
| 1995 | DGCR8 | CCGGACGAGAAAGACCCACT |
| 1996 | DGCR8 | ATCTTTGCACACCTCGACTT |
| 1997 | DGCR8 | GGATGACTTTGACAACGATG |
| 1998 | DGCR8 | CCTACAGAGCCGCTGCCCGA |
| 1999 | DGCR8 | ATCATGACATTCCATAACTC |
| 2000 | DGKK | TGCACCCAACCGGAAAGACA |
| 2001 | DGKK | CTACTTTGCACACCATCCCG |
| 2002 | DGKK | CTCGACAAACATTGCAGTGC |
| 2003 | DGKK | GGTACTCCAGTTACAGCCAC |
| 2004 | DGKK | CCTTATAAATTTCTCCCTGT |
| 2005 | DGKK | TGATCTGTCTCAAGCCACTG |
| 2006 | DGUOK | AATGTGTAGGACCATCGTGC |

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|---|---|---|
| 2007 | DGUOK | GCCAGCCGGATCACATTACA |
| 2008 | DGUOK | CATCGAGTGGCATATCTATC |
| 2009 | DGUOK | CTCGAAGCCGACTTAGAAAG |
| 2010 | DGUOK | TCTGTAGCTACGTGCCATTC |
| 2011 | DGUOK | GAGCCGCCTGAAAGTACAGC |
| 2012 | DICER1 | TACCTTCATAATTTCTCGAT |
| 2013 | DICER1 | CCCCTATCGAGAAATTATGA |
| 2014 | DICER1 | GCAGTTAGTCCCAAAATGCG |
| 2015 | DICER1 | TCCATCATGTCCTCGCATTT |
| 2016 | DICER1 | AGCCCACTTCTGTCAGTAAA |
| 2017 | DICER1 | CAATCCACCACAATCTCACA |
| 2018 | DIP2C | CCTCTCGCTACCACCGCCGA |
| 2019 | DIP2C | CCATCGAGGTCTGCACGACC |
| 2020 | DIP2C | GGTCACGAGATGAGCGCTAT |
| 2021 | DIP2C | CCTGGTCGTGCAGACCTCGA |
| 2022 | DIP2C | CCATGACGTCCGCCAGCCTG |
| 2023 | DIP2C | GCTGCCCCCGCTCTGCGTAG |
| 2024 | DIS3 | CGATTCGAGTAGCAGCAAAA |
| 2025 | DIS3 | GCCTTGCTGTAGCTTACTTA |
| 2026 | DIS3 | CCCTTAAGTAAGCTACAGCA |
| 2027 | DIS3 | AGCAAGACGATCTATGAGTT |
| 2028 | DIS3 | TTAGACTTACAAGTGAAAGC |
| 2029 | DIS3 | CTTGCTTGTTTGTCTGAAGA |
| 2030 | DISP1 | ATGCAGCCCTGATAGCCGAC |
| 2031 | DISP1 | AACAGCAATAGGCCAGAGAT |
| 2032 | DISP1 | TGACTTCTCTGATCCATTGC |
| 2033 | DISP1 | TATTCCATGTGACCAATCTC |
| 2034 | DISP1 | GACCTTTCAAGTTGCCAAAA |
| 2035 | DISP1 | TGGCACTAATACTCCAACCA |
| 2036 | DLC1 | TCACAGGAACGTGCCGCCGC |
| 2037 | DLC1 | TTAGAACTCACCGTAGTCTT |
| 2038 | DLC1 | CTGTAATTGCTCAGCAACGA |
| 2039 | DLC1 | TCACTACCTGACTGCTGTCA |
| 2040 | DLC1 | TCCACTCCAGTAGCCAATTC |
| 2041 | DLC1 | GGTGCTGCTGATTATGAAAC |
| 2042 | DLD | TGTAGTTGCTGGTCCAATGC |
| 2043 | DLD | GCTATTAAAGCTGCCCAGTT |
| 2044 | DLD | ATAGCAGCAACATATCCTCC |
| 2045 | DLD | TGTGGTAGTATCTATGCCAT |
| 2046 | DLD | CATGAGATATTCGATTGAAA |
| 2047 | DLD | TGATCTGCGTAAGTTCTCAG |
| 2048 | DLG3 | CGGGTCACCTCATAGCACTC |
| 2049 | DLG3 | CAGAGTGCACCTGTACCAAC |
| 2050 | DLG3 | ATGAGGAAATCGTACTTGAG |
| 2051 | DLG3 | TTTATTACCAAGATTATCCC |
| 2052 | DLG3 | CACCTGCGATACTGAAGCCC |
| 2053 | DLG3 | CCCTAGGTGAATGGCAGTGA |
| 2054 | DLST | AGCCTACCAGGTTTGCCAGA |
| 2055 | DLST | AGCTAGTGGTGGGGCAACAG |

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|---|---|---|
| 2056 | DLST | TCGCCCTCACAGCCTCCTTC |
| 2057 | DLST | AAGGTCTGCGTTCAGAACAT |
| 2058 | DLST | TACACAACCTTCCTGCTGTT |
| 2059 | DLST | TGCAGGGGTCTCCTTATGCC |
| 2060 | DMAP1 | TACTCCTGCTCCGAGTACAC |
| 2061 | DMAP1 | AGAACATTGCTCCGTCCTTG |
| 2062 | DMAP1 | CCTTAGTCCAAGCATCATCG |
| 2063 | DMAP1 | GTAGCTTACCTTATTGAACC |
| 2064 | DMAP1 | ACAGGAGCTGCGCAAGATTG |
| 2065 | DMAP1 | GACTTCCCGGTGCATGCCCT |
| 2066 | DMTN | CAGCACCTGATTGTCCATCT |
| 2067 | DMTN | CCCCTCACCTCGCGGCTGCG |
| 2068 | DMTN | GCTGGTCCGGGGGGTTCCAG |
| 2069 | DMTN | GGGGCTCACGCTCCCGGGGG |
| 2070 | DMTN | GGTACTCACCACGATGCTGG |
| 2071 | DMTN | CCTCCCATCTATAAGCAGAG |
| 2072 | DNAAF3 | GTCGTCCGCTTCGATGCCGA |
| 2073 | DNAAF3 | GTACTGGGGGGACATCGCCA |
| 2074 | DNAAF3 | GATCACTCAACACAACGTGA |
| 2075 | DNAAF3 | GGGCGCGCGAGAGCCACCGG |
| 2076 | DNAAF3 | GCTGATCTTCAGCCTAGCCC |
| 2077 | DNAAF3 | GGCTGAAGATCAGCATGTGT |
| 2078 | DNAH2 | GGTGCGGGGCCCCTATATCC |
| 2079 | DNAH2 | CCAGTCCTGTCAGCGCAGCT |
| 2080 | DNAH2 | CTTTCCCGAGCTGCGCTGAC |
| 2081 | DNAH2 | ATTCTTCCTAGAGCCACGGT |
| 2082 | DNAH2 | CTCCACCGAGCAGCCGAAGC |
| 2083 | DNAH2 | CAAGCCTACCACATCTGCCT |
| 2084 | DNAH3 | CCATGACGTGCGTTGCATCA |
| 2085 | DNAH3 | CCTTGATGCAACGCACGTCA |
| 2086 | DNAH3 | CATACCTGATAGAGTCCAGA |
| 2087 | DNAH3 | CCTTTCAGCGTTCAAAAGCC |
| 2088 | DNAH3 | ACATCACATGAGCCACTCCC |
| 2089 | DNAH3 | ACTGGCCGCCCCTCCCCATC |
| 2090 | DNAH9 | ATGAGAAGAATCGCCTAAAC |
| 2091 | DNAH9 | AGCTACTCTGAAGCTTGTCC |
| 2092 | DNAH9 | GGATTCTCCCCTTGTAAGAG |
| 2093 | DNAH9 | GGAGAATCCCACCCCTAAGG |
| 2094 | DNAH9 | CTTGCTCAAGTATAACTGAG |
| 2095 | DNAH9 | ATGTACAGAGATGTTGTTGC |
| 2096 | DNAJA1 | CAGCTCGTTGAAGCACTGTG |
| 2097 | DNAJA1 | AGTTCCCATACCTGGATGAG |
| 2098 | DNAJA1 | GAGTGCTGTCCCAATTGCCG |
| 2099 | DNAJA1 | TTAGAAGTTCATATTGACAA |
| 2100 | DNAJA1 | ATATGACAAAGGAGGAGAAC |
| 2101 | DNAJA1 | CACCATTATATAAGTCTTCT |
| 2102 | DNAJB7 | CTTCTTTGAAGACTCGCTTG |
| 2103 | DNAJB7 | TCCCACTATTATCAAAAGCC |
| 2104 | DNAJB7 | AGCTTCCTGGACGATTTAAC |

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|---|---|---|
| 2105 | DNAJB7 | TGTATCTCAATATACTTTCG |
| 2106 | DNAJB7 | ATGATGAGGGAGGTATATCT |
| 2107 | DNAJB7 | ACTTCAGACAAAATCGTTAA |
| 2108 | DNAJC9 | TTGGCGGCTACTCTTTAAAA |
| 2109 | DNAJC9 | TGCTCACCCAAGACCGAGAC |
| 2110 | DNAJC9 | TTATCATCAGATATCTTTAG |
| 2111 | DNAJC9 | TAGCCTGAAGGCAGCCATTC |
| 2112 | DNAJC9 | TTACCTGAATGGCTGCCTTC |
| 2113 | DNAJC9 | ATTATAGGATGGGACCTCTC |
| 2114 | DNASE1L3 | CTGTGACATCATACTCGTGA |
| 2115 | DNASE1L3 | CCTGGAAGAACATCCGCTTG |
| 2116 | DNASE1L3 | GCACCAACTGTGCATATGAC |
| 2117 | DNASE1L3 | GGATCTGCTCCTTCAACGTC |
| 2118 | DNASE1L3 | GTTGAAGGAGCAGATCCTCA |
| 2119 | DNASE1L3 | ACAACTATGTGATTAGCTCT |
| 2120 | DNHD1 | AGGTAGCGAGACGATGACAC |
| 2121 | DNHD1 | AGGTAAAGGACTTGCGTAAG |
| 2122 | DNHD1 | TAATACCTCACCTGCTAATA |
| 2123 | DNHD1 | TAGGCTATCACCTAAAGTAC |
| 2124 | DNHD1 | AAAAGCCGGTGCTGCTCTTT |
| 2125 | DNHD1 | CCAAGAGCAGATGATTCTCT |
| 2126 | DNM3 | GCAGAAACAGATCGCGTGAC |
| 2127 | DNM3 | GTTACAATGCCCGACCCTCG |
| 2128 | DNM3 | CCGAAAACGCGTCCTGCAGA |
| 2129 | DNM3 | GCCGAGTTTCTACATTGCAA |
| 2130 | DNM3 | GCTGCCGCAGATCGCCGTGG |
| 2131 | DNM3 | CAGCTTGTTACTTCTAAAGC |
| 2132 | DNMBP | GAGCAGCTTACCTCGATGGA |
| 2133 | DNMBP | GACCATTCCCAGTCTAAAAG |
| 2134 | DNMBP | CTGCCGAAAATCCAGAGCAG |
| 2135 | DNMBP | TATTATTGAGGTGCTGGCAG |
| 2136 | DNMBP | GGCCACCAGTGATGAAGACT |
| 2137 | DNMBP | GCTAGGGCAGAAGTCAAAAA |
| 2138 | DNMT3L | AGGGATCTGCGCCCCATGTA |
| 2139 | DNMT3L | ACTCACCTTCTATATTTCGC |
| 2140 | DNMT3L | CACCAAAATCACGTCCATGC |
| 2141 | DNMT3L | CTCTCAAGCTCCGTTTCACC |
| 2142 | DNMT3L | CACACAGCACCCTCTGTTTG |
| 2143 | DNMT3L | TCTTATTGCATATGAAGTCA |
| 2144 | DOCK9 | TCTCCCGTAAACAGTCGTTC |
| 2145 | DOCK9 | TCAAAACCTATAACTCTGAC |
| 2146 | DOCK9 | TCATGTCTATGAAGTTGACG |
| 2147 | DOCK9 | CTTACCTGAAAGTCATCGTA |
| 2148 | DOCK9 | TTATAGCAAAGTGGTCAAGT |
| 2149 | DOCK9 | AAGATGCCAGTCAGAGTTAT |
| 2150 | DPP4 | CTTAGAATACAACTACGTGA |
| 2151 | DPP4 | CTAACCAATTTATGACCCAC |
| 2152 | DPP4 | ACAACACACAGTGGGTCACA |
| 2153 | DPP4 | TGAAGTTATACTCCTTAAGA |

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|---|---|---|
| 2154 | DPP4 | CTTACCTGAAATCCATCTTA |
| 2155 | DPP4 | AAGAGAATAAACTGCCCATC |
| 2156 | DPP6 | CTTCAAAATTCATGACCCCG |
| 2157 | DPP6 | AAAAGTGCATACTCTCTATC |
| 2158 | DPP6 | ACCACTTATCCACTTAGCCT |
| 2159 | DPP6 | ACTTCTACTGTCTTAATAGA |
| 2160 | DPP6 | TTCATCTACAGAGAACAGAA |
| 2161 | DPP6 | TAGTCTGTCTCAAAAGAAGA |
| 2162 | DR1 | TCCCGCCTGATTAGATGCAC |
| 2163 | DR1 | CACCAGCTCTCGAGCATCGT |
| 2164 | DR1 | GGTACTATGGCTTCCTCGTC |
| 2165 | DR1 | CTCAGCCAGTGCATCTAATC |
| 2166 | DR1 | AGTTCTCGTTTGGAAAACCT |
| 2167 | DR1 | TGTCTCAATAACTCTTCTTC |
| 2168 | DRGX | GCTGAAGAGTGAACGTCGTC |
| 2169 | DRGX | GGGCGTAGGTGGCCGTGTTC |
| 2170 | DRGX | CAGGACCTACCGTTCGCCCC |
| 2171 | DRGX | GACGACGTTCACTCTTCAGC |
| 2172 | DRGX | TTTCATGGCGAGCTCTTCTC |
| 2173 | DRGX | TTACCAGCTGGAAGCTCTCG |
| 2174 | DST | GTCACTCCAGCTTATACACC |
| 2175 | DST | TTACACCCTAGTCTGACCTC |
| 2176 | DST | TCTGTACCAATTGATCTGCC |
| 2177 | DST | ATACTACCAGGCAGATCAAT |
| 2178 | DST | AGATTGCCAACAGAGTTCAG |
| 2179 | DST | ACTGTCCCTCTGAACTCTGT |
| 2180 | DSTN | GCTTGTATTGCTGAAAAGTT |
| 2181 | DSTN | AATGATCTATGCAAGCTCCA |
| 2182 | DSTN | AAACATGAATGTCAAGCAAA |
| 2183 | DSTN | GCAATTAAAAAGAAATTTCA |
| 2184 | DSTN | AGAAATCAAGAAAAGAAAGA |
| 2185 | DSTN | AAGTGCATCATTGTAGAAGA |
| 2186 | DTWD2 | GTCGTCGCTTCAGTGAAGAA |
| 2187 | DTWD2 | CTTGTTCCGACATCCCAAAC |
| 2188 | DTWD2 | GGGAGGCATGCTGCTAGTAG |
| 2189 | DTWD2 | CTGCACACTCCAGTGTAGAA |
| 2190 | DTWD2 | ATATTAATGTACCAGACTTC |
| 2191 | DTWD2 | GATGCTGAATTATGTACAAG |
| 2192 | DTX2 | CTGGGGAGGTCAATAATGTA |
| 2193 | DTX2 | GTGGCGGTAGCGGCCTGACA |
| 2194 | DTX2 | AGCCAGCGTCTGTGACTATC |
| 2195 | DTX2 | TGTGGCCGTGTGGGAATGGC |
| 2196 | DTX2 | AAGACACAAACCTCATCTGG |
| 2197 | DTX2 | GCCAGAGCCAGAGCCAGAGC |
| 2198 | DUS1L | GCCGCCTGAACAAACACCTC |
| 2199 | DUS1L | GTTTGTTCAGGCGGCTCTCC |
| 2200 | DUS1L | TCACTATGGCGCCTTTCTGC |
| 2201 | DUS1L | TCCTAGTTGCTGACGGTGCA |
| 2202 | DUS1L | CACAGCCTTGATATGCTCCC |

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| 2203 | DUS1L | GACACCGCAGCTTCAGCTCC |
| 2204 | DUSP27 | AGGACCTGTACAACCGCGTC |
| 2205 | DUSP27 | CTATAATACGCCCTGTGTCC |
| 2206 | DUSP27 | GGAGCAGGTAGTCCCAAGCG |
| 2207 | DUSP27 | GGTTGTCATGGCGACCAGAA |
| 2208 | DUSP27 | GCCAAACAGATCATCAATGA |
| 2209 | DUSP27 | ACCTTCATTGATGATCTGTT |
| 2210 | DUT | CCTGTACAGGTCGTAGCCCG |
| 2211 | DUT | CCGCGGGCTACGACCTGTAC |
| 2212 | DUT | TTTGCAGCCAAGCCTGACCG |
| 2213 | DUT | ATTCAGATAGCGCTCCCTTC |
| 2214 | DUT | GTCATAGATGAAGATTATAG |
| 2215 | DUT | ACTCTTCCATAACACCCAGA |
| 2216 | E2F2 | CGAGACTGGAAGTGCCCGAC |
| 2217 | E2F2 | GCAGACAGTGATTGCCGTCA |
| 2218 | E2F2 | GGTAGACTTCGATGGGCCCT |
| 2219 | E2F2 | GAGCTTCAAGCACCTGACTG |
| 2220 | E2F2 | GGAGCCGGACAGTCCTTCCG |
| 2221 | E2F2 | TTTGAAGACCCCACCAGACC |
| 2222 | EDA | GCAACTCCGAGCGCAACTCT |
| 2223 | EDA | CTGCTACCTAGAGTTGCGCT |
| 2224 | EDA | CTACTTTCTTCTTCAGAGTA |
| 2225 | EDA | CAGGGAAGAAGAAATTCAAT |
| 2226 | EDA | CCCAGTTAAAAACAAGAAAA |
| 2227 | EDA | CGTGGAGCCGAGTCCCGCCT |
| 2228 | EDF1 | TCGCGGACTATGAGAGCGGA |
| 2229 | EDF1 | GAGCAAGGGGCTTACGCAGA |
| 2230 | EDF1 | TCATAGTCCGCGATCACCTG |
| 2231 | EDF1 | CTTTGTGTTCATTTCGCCCT |
| 2232 | EDF1 | CATTGGAAAGCCCATCGAGA |
| 2233 | EDF1 | GTGGGCAAGGTGATCCAGCA |
| 2234 | EFCAB14 | GTCTGCAGCTGACTTAACAT |
| 2235 | EFCAB14 | CTCTGAGTCCAGCTCCGAAG |
| 2236 | EFCAB14 | TGACTGCTTGGGCCTTTCTT |
| 2237 | EFCAB14 | TAGCCTGCCTACCACTGTAG |
| 2238 | EFCAB14 | CATCCTTGCTGCCTGTGTTG |
| 2239 | EFCAB14 | AAGATCTGTTATCCGCTCTG |
| 2240 | EFCAB3 | GATGTGCACTGTAGCTAAGC |
| 2241 | EFCAB3 | TACCCATCTCCCACAATAAA |
| 2242 | EFCAB3 | CTACAGTGCACATCAGTCCA |
| 2243 | EFCAB3 | GAAGCTAAGTGCTTCACAAA |
| 2244 | EFCAB3 | CTCAGGGATAGAGACTTACC |
| 2245 | EFCAB3 | GTCCTTGTAGAAGAAGTTGT |
| 2246 | EFHD2 | CAACGTGTCCAGCCGCTTCG |
| 2247 | EFHD2 | CCGCCGCCTTGCGGAAGATC |
| 2248 | EFHD2 | CACCATGGCCACGGACGAGC |
| 2249 | EFHD2 | TGAGATCGACGTCTCCAGTG |
| 2250 | EFHD2 | AGACGCGGCGGCTGGGCGAC |
| 2251 | EFHD2 | CAGCCCCCGCTACTTAAAGG |

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| 2252 | EFNA4 | CAATGTCTAGGTAATCGTTG |
| 2253 | EFNA4 | GCCTCCGCCACGTAGTCTAC |
| 2254 | EFNA4 | AGTTCCAGTAGACTACGTGG |
| 2255 | EFNA4 | ATTGTCTGCCCCCACTACGA |
| 2256 | EFNA4 | AAGCACTGGCCAGAACTCTC |
| 2257 | EFNA4 | GTGCCCACTCCAGAGAGTTC |
| 2258 | EFNA5 | TTTGTGCCGCGTTCTCGCCG |
| 2259 | EFNA5 | TGGCTCGGCTGACTCATGTA |
| 2260 | EFNA5 | TGAGCGCTATGTCCTCTACA |
| 2261 | EFNA5 | CCGACCGCTACGCTGTCTAC |
| 2262 | EFNA5 | GCCAGGCGTGATGTTGCACG |
| 2263 | EFNA5 | GCCTGCGACCACACTTCCAA |
| 2264 | EGFR | TGAGCTTGTTACTCGTGCCT |
| 2265 | EGFR | GAGTAACAAGCTCACGCAGT |
| 2266 | EGFR | ATAGTTAGATAAGACTGCTA |
| 2267 | EGFR | GAATTCGCTCCACTGTGTTG |
| 2268 | EGFR | TGTGATCCAAGCTGTCCCAA |
| 2269 | EGFR | GACAGCTTGGATCACACTTT |
| 2270 | EGLN1 | TCTTTACCGACCGAATCTGA |
| 2271 | EGLN1 | TACTACCTTGTAGCATATGC |
| 2272 | EGLN1 | GGCCATGGTTGCTTGTTATC |
| 2273 | EGLN1 | GCAAACTGGGCTTTGCCTTC |
| 2274 | EGLN1 | ACATAACCCGTTCCATTGCC |
| 2275 | EGLN1 | TTAGGTACGCAATAACTGTT |
| 2276 | EGLN2 | ACGTACCCGAGCCCGTTGCC |
| 2277 | EGLN2 | TGATGCAGCGCCCATCGCCG |
| 2278 | EGLN2 | TCACCTCGTGGGGGTTCCGC |
| 2279 | EGLN2 | CCAGGTACGCCATCACTGTC |
| 2280 | EGLN2 | TGGCTCGATGTTGGCTACCA |
| 2281 | EGLN2 | ACCTAGCTGATACTTGTCTT |
| 2282 | EGLN3 | CTATTACCTGGTTGCGTAAG |
| 2283 | EGLN3 | AACAGGTTATGTTCGCCACG |
| 2284 | EGLN3 | TGCAGCCCTCTTACGCAACC |
| 2285 | EGLN3 | GATGCAGCGACCATCACCGT |
| 2286 | EGLN3 | ACAGATATGCTATGACTGTC |
| 2287 | EGLN3 | AGCACGGTCAGTCTTCAGTG |
| 2288 | EHD4 | ACGACCTCATCAAGCGAGCG |
| 2289 | EHD4 | CGGCCTTGTTCAGCACGACA |
| 2290 | EHD4 | TCCTTCATCGCCGTGATGTA |
| 2291 | EHD4 | CGAGAATACCAGATTTCTGC |
| 2292 | EHD4 | TTTAGAAAGCTCAGTCGCTT |
| 2293 | EHD4 | CGATGACGCTGATGCTCTTC |
| 2294 | EHHADH | CGTTACCTGATCGCGTTGAC |
| 2295 | EHHADH | TCGGAGGCGGATTAGCGCCA |
| 2296 | EHHADH | CAATCCTATAGTGACAGCCC |
| 2297 | EHHADH | ATCCAAGGCATGGCTTTCGG |
| 2298 | EHHADH | GTAATTAAGTCAAGTGCAGC |
| 2299 | EHHADH | TGGCTTACCAGAAGTTACAC |
| 2300 | EIF1B | TGAATAACCTCTCCGTATTC |

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|---|---|---|
| 2301 | EIF1B | TCTTTCTGCCGTTCCGTTGC |
| 2302 | EIF1B | GTGACGACTTACTCCCGGCA |
| 2303 | EIF1B | GGATCTTACCGAAAGATTGG |
| 2304 | EIF1B | TTTACAGGTTGGCATTGTAA |
| 2305 | EIF1B | TTCAATCACAGTACCATTAC |
| 2306 | EIF2A | TCTTTAGTCCGAGGATCAGA |
| 2307 | EIF2A | ATTGACATAGGTGTCCATCC |
| 2308 | EIF2A | AAGAGTTTCATCTTCTGACC |
| 2309 | EIF2A | TGTACAGTCCTTCTGATCCT |
| 2310 | EIF2A | ACCTTGTTTGCCTGGGGCAA |
| 2311 | EIF2A | CTGAAAGAACAAGCAGCAAC |
| 2312 | EIF4EBP1 | CCGCCCGCCCGCTTATCTTC |
| 2313 | EIF4EBP1 | GTGAGTTCCGACACTCCATC |
| 2314 | EIF4EBP1 | GTCGTGCTGTAGTCCCCGGG |
| 2315 | EIF4EBP1 | GACTACAGCACGACCCCCGG |
| 2316 | EIF4EBP1 | TGAAGAGTCACAGTTTGAGA |
| 2317 | EIF4EBP1 | GTACCAGGATCATCTATGAC |
| 2318 | EIF5 | AATGACCGTTACATTGTCAA |
| 2319 | EIF5 | ACGTTGCAAAGGCGCTTAAT |
| 2320 | EIF5 | GCACTTACCAAATCTGTTTC |
| 2321 | EIF5 | CACACTCCAAACCATGAAGA |
| 2322 | EIF5 | CAAGACAGTTATAGTCAACA |
| 2323 | EIF5 | CATCATCAGCTGGTCGGAAA |
| 2324 | ELAVL2 | TCCAGGACCGCTAGCTCAGC |
| 2325 | ELAVL2 | TTCTCGTATTCTTGTCGACC |
| 2326 | ELAVL2 | TCGATTTGACAAGCGAATTG |
| 2327 | ELAVL2 | TGTGAACTACATTGACCCCA |
| 2328 | ELAVL2 | GTTGGACAATCTGCTCAATA |
| 2329 | ELAVL2 | TTTGAAGTCTCAATCCATTC |
| 2330 | ELL | GCGGGCAACCCCCATCAACT |
| 2331 | ELL | CACCGACGACTCCTACCAGA |
| 2332 | ELL | TGTCGCGGCCGATGTTGGAG |
| 2333 | ELL | GGCACCGCGTCTGTTGCACC |
| 2334 | ELL | CCATGCTCTGCCGCGCCTTC |
| 2335 | ELL | GGAGAACGTCCGCGCCTCTG |
| 2336 | ELP3 | TCCGAGCCACCAATTCAACC |
| 2337 | ELP3 | GATGCCTGACCTGCCAAACG |
| 2338 | ELP3 | GAGTTACTCTCCTAGTGACC |
| 2339 | ELP3 | ATGGGCCACCACTTTAAAAC |
| 2340 | ELP3 | TTTCCTGTAAAACTGATGTG |
| 2341 | ELP3 | CTCGAGTCCATGGAGGCACG |
| 2342 | EME2 | GACTCGCTCGGGTCCACCGC |
| 2343 | EME2 | GGTCTCGCCAGCACGTTTCC |
| 2344 | EME2 | CTCCATCAGGACGTCGGCAC |
| 2345 | EME2 | GGGCGTCGCCACACTGACCC |
| 2346 | EME2 | GCTGACGGCCACCTCGGCAC |
| 2347 | EME2 | CATCCAGCCCGATGACAGCC |
| 2348 | EMP3 | ATCTCTGGTACGACTGCACG |
| 2349 | EMP3 | TGTAGATGATGCCGCTGACC |

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|---|---|---|
| 2350 | EMP3 | GATCTATGCCATTCACGCCG |
| 2351 | EMP3 | CAGCTCTACACCATGCGACG |
| 2352 | EMP3 | GAAGAGACCTCCTCGTCGCA |
| 2353 | EMP3 | ATTCTCGCTGACATTACTGC |
| 2354 | ENO1 | TGACAAACTGATGATCGAGA |
| 2355 | ENO1 | GCGAGAGTCAAAGATCTCCC |
| 2356 | ENO1 | TCGCGGGAATCCCACTGTTG |
| 2357 | ENO1 | TTCAGAGCTGCTGTGCCCAG |
| 2358 | ENO1 | AGCGAGTCTTATCATTGTCC |
| 2359 | ENO1 | CTATTCTCAAGATCCATGCC |
| 2360 | ENO2 | CCCGTGCCGTTCTGAACGTC |
| 2361 | ENO2 | ACTGCCCGCTCAATACGTTT |
| 2362 | ENO2 | GGAGACAAACAGCGTTACTT |
| 2363 | ENO2 | CCAACCCAAAACGTATTGAG |
| 2364 | ENO2 | GATGCCCGTAGAGGCTCCAC |
| 2365 | ENO2 | GGGACCCTCACCTCATGAGC |
| 2366 | ENO3 | AGTCGCCTGATGATCCCGCA |
| 2367 | ENO3 | CGCCACATCGCAGATCTCGC |
| 2368 | ENO3 | TCCCAGCGAGATCTGCGATG |
| 2369 | ENO3 | CAGAGCCTCATAGATACCCG |
| 2370 | ENO3 | GCATCTGAGTTCTATCGCAA |
| 2371 | ENO3 | GGCTTCCACGGGTATCTATG |
| 2372 | ENPP3 | CATGTCACTTGGATTAGGCC |
| 2373 | ENPP3 | TTAAGAGTGTTCTTCTTAAC |
| 2374 | ENPP3 | ATCTACGTTGACTTTAGCAA |
| 2375 | ENPP3 | AAGACCGAGGTGATTGCTGC |
| 2376 | ENPP3 | ACTCATACTTGATTCCACAC |
| 2377 | ENPP3 | ATAGGTTCTTCTTGCTTTGC |
| 2378 | ENTPD8 | CGTAGAGGCGAAAATCGGCC |
| 2379 | ENTPD8 | ACCCAGATCACGTTCGTGCC |
| 2380 | ENTPD8 | TGTTCGCCAGCCACTGATAC |
| 2381 | ENTPD8 | GGGACGCACCTTGATGTCTG |
| 2382 | ENTPD8 | CGTCCCTCTTCCTGTATCAG |
| 2383 | ENTPD8 | CGTGAGGCCTGAGACCCCCG |
| 2384 | EP300 | CTGTCAGAATTGCTGCGATC |
| 2385 | EP300 | CTTGGCAAGACTTGCCTGAC |
| 2386 | EP300 | TAGTTCCCCTAACCTCAATA |
| 2387 | EP300 | ATGCTCACAAGTGCCAGCGC |
| 2388 | EP300 | ATGTTGGGCATTCCTCCACC |
| 2389 | EP300 | ATGAACAACCCCAATCCTTA |
| 2390 | EPAS1 | GCTGATTGCCAGTCGCATGA |
| 2391 | EPAS1 | CAAGGCCTCCATCATGCGAC |
| 2392 | EPAS1 | CATGAAGAAGTCCCGCTCTG |
| 2393 | EPAS1 | TTGGTTCACACATGATGATG |
| 2394 | EPAS1 | TAGCCACACAGACTATTGTG |
| 2395 | EPAS1 | TCAACCTCAAGTCAGCCACC |
| 2396 | EPM2A | GTGTACGTGCACTGCAACGC |
| 2397 | EPM2A | TTACATGTTCCACCTGACGA |
| 2398 | EPM2A | TTACCTTCGGTGCTCATATC |

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|---|---|---|
| 2399 | EPM2A | GGCTGTCTACATTGACGAAG |
| 2400 | EPM2A | TGTACCAGAACGTGTCCACG |
| 2401 | EPM2A | CCCGCCATGCGCTTCCGCTT |
| 2402 | EPOR | ACGGTGATATCGCGGAGCGC |
| 2403 | EPOR | GCGCACCGCACCACGAGCCG |
| 2404 | EPOR | CCGAGACGTCCACCTCGTAG |
| 2405 | EPOR | GGAGCCAGCGCAACACTACG |
| 2406 | EPOR | GTGGGAGAGCAGCGCGAGCA |
| 2407 | EPOR | TCGCGCTGCTCTCCCACCGC |
| 2408 | EPPIN | CGTCCTCTTAGCGAATGTCC |
| 2409 | EPPIN | GCAGCCACCATAGACAAACA |
| 2410 | EPPIN | AATAACCAATCAGTCAGACC |
| 2411 | EPPIN | ACTTGCTCCATGTTTGTCTA |
| 2412 | EPPIN | CACAACACTTCTTGTTGTCC |
| 2413 | EPPIN | AAGTGTTGTGTCTTCAGCTG |
| 2414 | EPS8 | TCATAGCATCTTTCCGATCC |
| 2415 | EPS8 | GCACTTGACTACCTTTGTCC |
| 2416 | EPS8 | TCAACTTACTTCATCTGAGA |
| 2417 | EPS8 | AACAAAGGAAGAATTATGCA |
| 2418 | EPS8 | TCTAATCATCCCAGTAGTTT |
| 2419 | EPS8 | TTGAGTCCACACTTTGCCCT |
| 2420 | ERBB3 | CACTGTACAAGCTCTACGAG |
| 2421 | ERBB3 | TTCTCTACTGGCGTGGGCGC |
| 2422 | ERBB3 | GTCCCGTGAGCACAATCTCA |
| 2423 | ERBB3 | TGGTAGGCGCTATCTCCGCG |
| 2424 | ERBB3 | ACCTTTATGACCAGATACCG |
| 2425 | ERBB3 | CCGAGACCCACCACGGTATC |
| 2426 | ERC2 | AATGCAGCCTATGCTACGTC |
| 2427 | ERC2 | GCTACAAATCGAGCTGTATA |
| 2428 | ERC2 | GGACACAAAAATCGCTTCAT |
| 2429 | ERC2 | AGTGCCTTACCTCAGTCTGA |
| 2430 | ERC2 | ACGAAACATAAGGGATCTTG |
| 2431 | ERC2 | CACTTACTGCCAAAGAACAG |
| 2432 | ERCC1 | AGTTCGTGCGCAATGTGCCC |
| 2433 | ERCC1 | GCTCTGTGTAGATCGGAATA |
| 2434 | ERCC1 | CGTAATTCCCGACTATGTGC |
| 2435 | ERCC1 | ACTGCACATTGATCCTCGCC |
| 2436 | ERCC1 | CATATTCGGCGTAGGTCTGA |
| 2437 | ERCC1 | AGCCGCCCATGGATGTAGTC |
| 2438 | ERCC2 | TTATCGGCAGGCATATCCGC |
| 2439 | ERCC2 | ACTGGCCCGCAAGGCCGTCG |
| 2440 | ERCC2 | TTCGACGAGGCCCACAACAT |
| 2441 | ERCC2 | GGGCGAGAAGCTGCCGTTTC |
| 2442 | ERCC2 | GCTCAACTTCTATGAGAAGC |
| 2443 | ERCC2 | CAGCTTACCTTCTCAATCTC |
| 2444 | ERCC3 | AAACGGGCGTGCACGTTCGG |
| 2445 | ERCC3 | CCTCAGCCAAGATGTTCCGA |
| 2446 | ERCC3 | GCACGATGGTGAGCACCCTT |
| 2447 | ERCC3 | ATCCTCATAGTGCCGCTTCC |

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|---|---|---|
| 2448 | ERCC3 | ATGATGAAGAGGACGCCCCG |
| 2449 | ERCC3 | CAGGGTTGACAGAATCATTC |
| 2450 | ERCC4 | GTGTTATATTTGCGACAAGT |
| 2451 | ERCC4 | TTAGACAATCCGCCATTATC |
| 2452 | ERCC4 | AAATCTTCCACTTCAAGCGA |
| 2453 | ERCC4 | GACAAGACTCGATTATTCTG |
| 2454 | ERCC4 | CCATAACCCATCGCTTGAAG |
| 2455 | ERCC4 | CAAGACTAAATCCTTAGTTC |
| 2456 | ERCC5 | GACTCAATATCTATCGCTTG |
| 2457 | ERCC5 | AGCGATAGATATTGAGTCTG |
| 2458 | ERCC5 | GCATATAGAACATGTCCAAA |
| 2459 | ERCC5 | AGATGAAGGGGGCTTTCTGA |
| 2460 | ERCC5 | AAATAATGTTCTTCTGCGCT |
| 2461 | ERCC5 | ATTATTTGAAGCAATGCCAG |
| 2462 | ERCC8 | GCCAAGATATAGTCATAACG |
| 2463 | ERCC8 | CAGTGGTATCCTCATGACAC |
| 2464 | ERCC8 | TCCACGTTATGACTATATCT |
| 2465 | ERCC8 | ACACTGTATCTGTGAACATC |
| 2466 | ERCC8 | TGTGTAATAAGATTGTCTGC |
| 2467 | ERCC8 | TGTAAAGCAGTGTGTTCCAT |
| 2468 | ERG | GATAACTCTGCGCTCGTTCG |
| 2469 | ERG | CGCAGAGTTATCGTGCCAGC |
| 2470 | ERG | CCCTTTCAGATCCTACGCTA |
| 2471 | ERG | AAGGATGTCGGCGTTGTAGC |
| 2472 | ERG | TTTCCTTACCTTAATAGTGC |
| 2473 | ERG | CATTATGGCCAGCACTATTA |
| 2474 | ESD | TCCCCCAAAGCACTTGTTGC |
| 2475 | ESD | CCTGAGAGCCAATACAGTGC |
| 2476 | ESD | AATGTACTCTTATGTCACAG |
| 2477 | ESD | TGCTGTCTACTTACCACCAA |
| 2478 | ESD | ATTTCCAGCAACAAGTGCTT |
| 2479 | ESD | ATAGGTGGCTGCAATATTAA |
| 2480 | ESR1 | GCCAGACGAGACCAATCATC |
| 2481 | ESR1 | CTCCGTAAATGCTACGAAGT |
| 2482 | ESR1 | GGGATACGAAAAGACCGAAG |
| 2483 | ESR1 | TCATACTCGGAATAGAGTAT |
| 2484 | ESR1 | AAATTCAGATAATCGACGCC |
| 2485 | ESR1 | TACCTGTCCAAGAGCAAGTT |
| 2486 | ETFDH | GTATAATGGGTAGTAATTCG |
| 2487 | ETFDH | TTGTATCCCTACATCGTTAG |
| 2488 | ETFDH | CCCTTGGACAGACATACCTA |
| 2489 | ETFDH | CTCCTTCAGTCCAATCCCGT |
| 2490 | ETFDH | ACAAAAGGATGGTGCACCAA |
| 2491 | ETFDH | CCTAGTAGCTCTTGGTCTTG |
| 2492 | ETS1 | GAGAGTCGGCTTGAGATCGA |
| 2493 | ETS1 | TGGAAACCACAGTTCATTCG |
| 2494 | ETS1 | GAAGATCCTCGAATGAACTG |
| 2495 | ETS1 | GACTCTCACCATCATCAAGA |
| 2496 | ETS1 | CACTAAAGAACAGCAACGAC |

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|---|---|---|
| 2497 | ETS1 | ACGAGGCGCTGAGTAAGGGA |
| 2498 | EVX1 | CGGTGCGGTAACGACGCATC |
| 2499 | EVX1 | CGGCGGCCCCTTATCTAGTG |
| 2500 | EVX1 | ACCGGGAGAACTACGTATCC |
| 2501 | EVX1 | AGCACGCGGAACGTGTCGAG |
| 2502 | EVX1 | GCGTTCCCGGTGGCGCAGTC |
| 2503 | EVX1 | CTCAAATTTGTCCGAAGCCG |
| 2504 | EXOC5 | ACATCACTTACTTGCAATTT |
| 2505 | EXOC5 | GCCTATCAAAAGGTAACTCT |
| 2506 | EXOC5 | TGTTTATATAAAGCAGTGCC |
| 2507 | EXOC5 | TTATATAAACATCAACACAA |
| 2508 | EXOC8 | GCGAGTTCGACAGCTCACTG |
| 2509 | EXOC8 | ATTCGTCAGCTTCGCATCGA |
| 2510 | EXOC8 | TCGAACTCGCTCCTCCACTT |
| 2511 | EXOC8 | GGGCCGTCTCTATGAACTGC |
| 2512 | EXOC8 | GGCCCGCGAGATCTCCTACC |
| 2513 | EXOC8 | TTATAGTCTTCGATGTGAGC |
| 2514 | EZH1 | ACAGGCTTCATTGACTGAAC |
| 2515 | EZH1 | AGCTGATCAATAACTATGAT |
| 2516 | EZH1 | CCTCATCTGAGTACTGATTC |
| 2517 | EZH1 | AGAAAGCGACATGCTATTGA |
| 2518 | EZH1 | TACCACTACCTTCTTCACCA |
| 2519 | EZH1 | GCTTTGCTAGGCTTTGTATG |
| 2520 | F8 | GCACTGTACAATCTCTATCC |
| 2521 | F8 | TCTGCTAGGTCCTACCATCC |
| 2522 | F8 | CTCAGGATCAAAGGATTCGA |
| 2523 | F8 | CCAACAGCATGAAGACTGAC |
| 2524 | F8 | TTGGCTTAGCGATGTTGAAA |
| 2525 | F8 | GACTCTGTTTGTAGAATTCA |
| 2526 | FAAH2 | CACCGGCCGAGGGGTCTTTG |
| 2527 | FAAH2 | GACGTGAACCCAATGATCAA |
| 2528 | FAAH2 | TGAATGCGGGCGGTAAATGA |
| 2529 | FAAH2 | TAGGTTTGAGGAAGCGATGA |
| 2530 | FAAH2 | TGGGGTTCCTTTGACAGTCA |
| 2531 | FAAH2 | GAAATGTATAGATGTTGTTC |
| 2532 | FABP5 | CAAAGCCTTTGCTGTCCACC |
| 2533 | FABP5 | CATGGCCACAGTTCAGCAGC |
| 2534 | FABP5 | GGGAATAGCTTTGCGAAAAA |
| 2535 | FABP5 | TTTCTTCAAACTTCTCTCCC |
| 2536 | FABP5 | ACTGTCTGCAACTTTACAGA |
| 2537 | FABP5 | CATTGGTTCAGCATCAGGAG |
| 2538 | FAHD1 | GGAACTACGCGGACCACGTC |
| 2539 | FAHD1 | TGCAGGTTGCGAGTGTACGC |
| 2540 | FAHD1 | AACACTTCCTGTGAGACTAC |
| 2541 | FAHD1 | CTTCATTCCTGTAGTCTCAC |
| 2542 | FAHD1 | CCCTCAGCTTCCCGTTTCTG |
| 2543 | FAHD1 | ACCTCAGAAACGGGAAGCTG |
| 2544 | FAM107A | CCCCCGAGTTTATTAAAGTC |
| 2545 | FAM107A | AGCGTGTCCTAGAGCACCGC |

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|---|---|---|
| 2546 | FAM107A | TCAGTGTGGCAATTCTCCGC |
| 2547 | FAM107A | GAAGCTGCTGAACCCCGTGA |
| 2548 | FAM107A | CAATGTCTGCCCGCTCCCTC |
| 2549 | FAM107A | TCTAGGACACGCTGCAGCTC |
| 2550 | FAM172A | TTCATGGTAGTGGTGTTGTC |
| 2551 | FAM172A | GAAGTATGTATATGAGCTCC |
| 2552 | FAM172A | ATGGAACCAGAAAAGATACG |
| 2553 | FAM172A | ACCGTTTATTAAAAGAGCTG |
| 2554 | FAM172A | AAGCATATTCAAATCCTTCC |
| 2555 | FAM172A | TCCATCTGTGTAAATCTTCC |
| 2556 | FAM174A | GCCAGGGGCCCGCTTAGTTC |
| 2557 | FAM174A | GGCAGCGGCGGTAATGTCCG |
| 2558 | FAM174A | TTGATGCCAATCATCCTCGA |
| 2559 | FAM174A | TACTTACCTTCGAGGATGAT |
| 2560 | FAM174A | GTGATCGTCCGTCTCAAGCC |
| 2561 | FAM174A | GACATTACCGCCGCTGCCAC |
| 2562 | FAM200A | CGTACCATGTCCATACATGC |
| 2563 | FAM200A | TATCAGTGCTCTCATCGAGT |
| 2564 | FAM200A | TGTTTCATACAGAAGTTCGT |
| 2565 | FAM200A | ATGACTTTCCACTGCTAAGT |
| 2566 | FAM200A | TGCAAGTTGTCCCACACTCT |
| 2567 | FAM200A | CTGTACGATTGCAAAACATT |
| 2568 | FAM20A | GGTTAATACCCAGGTGGAAC |
| 2569 | FAM20A | GCAGATGAACCTTACCTCCC |
| 2570 | FAM20A | ATGAAGTAGAAGAAGTCCAC |
| 2571 | FAM20A | TTCCAGACAGCAGCGAGATG |
| 2572 | FAM20A | TTACCTCATGGGTTTGAACA |
| 2573 | FAM20A | AGGCCATGTTCAAACCCATG |
| 2574 | FAM219B | AGGTCCAAGTCCTCGTCATC |
| 2575 | FAM219B | TAATGTCTACTGGAGGGTAC |
| 2576 | FAM219B | CCGAACCGCCCAGACTCTTC |
| 2577 | FAM219B | ACCTGGCCAAGGCCGTTCTG |
| 2578 | FAM219B | GCACTCACCTGTCAGAGTCG |
| 2579 | FAM219B | CTCCGGGTATTCATCTGCAG |
| 2580 | FAM53B | CAATGTCCAACTCGCCGTCC |
| 2581 | FAM53B | GGACTCCACCACCGATTTGG |
| 2582 | FAM53B | CCTCCATGATGTCCGGCAAC |
| 2583 | FAM53B | GTTGCTGACGTGGCGGGCGA |
| 2584 | FAM53B | CCTCACCAGTTCACGGCTGA |
| 2585 | FAM53B | GGAGCTGACTCCATTGCATG |
| 2586 | FAM72A | GCATGACTTACTTGGTAGGA |
| 2587 | FAM72A | TACCAACATTTGTAGTTTCA |
| 2588 | FAM72A | CAGTTTACATTTGCAGATTT |
| 2589 | FAM72A | TCCAGCGCAGTGGACTTCAC |
| 2590 | FAM72A | TGTTAATATCATAAACTGCC |
| 2591 | FAM72A | CCAGAAGTGTCCGTTGTTGC |
| 2592 | FASN | CCTTCAGCTTGCCGGACCGC |
| 2593 | FASN | GGATGGTGGCGTACACCCGC |
| 2594 | FASN | CGACCCACCTCCGTCCACGA |

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|---|---|---|
| 2595 | FASN | CTGCAAGGCCTTCGACACAG |
| 2596 | FASN | GGCTGTGTCCAGTGCGATGC |
| 2597 | FASN | TACGCCACCATCCTGAACGC |
| 2598 | FASTKD2 | ATGCACCGATTGCTCTTAAG |
| 2599 | FASTKD2 | TCACCGATCTCTTATACTCC |
| 2600 | FASTKD2 | GAATGCAGTAAGGTGGTCCT |
| 2601 | FASTKD2 | CAAGTTGTGATGAAGTGTAT |
| 2602 | FASTKD2 | GAATGTTCATGTTCTACGAA |
| 2603 | FASTKD2 | AGAACATGAACATTCTTGCA |
| 2604 | FBF1 | GTATGTGAAGCTAGTTTAAC |
| 2605 | FBF1 | GAACATCTGAGATACACCTG |
| 2606 | FBF1 | TAGGCACCAAAAACCAAGAA |
| 2607 | FBF1 | CCCCTTTGCAGGTCCCTCCT |
| 2608 | FBF1 | TGCTGAAGACATCATCACCC |
| 2609 | FBF1 | CTCACCTTTACATCCTTTCT |
| 2610 | FBN2 | TCTAGCGCCCGAGTATCGCG |
| 2611 | FBN2 | GGCACCCTCCTCGCGATACT |
| 2612 | FBN2 | CATCACAGGCCCAACGTGTG |
| 2613 | FBN2 | AGCACTCACGGACAATGCAC |
| 2614 | FBN2 | CTGGCAGTGGTCATCTGCAC |
| 2615 | FBN2 | AAGTTCCAATATATCCTTTC |
| 2616 | FBP1 | ATCGATTGCCTTGTGTCCGT |
| 2617 | FBP1 | TTCTGACACGAGAACACACG |
| 2618 | FBP1 | CACCAAAATGAACTCCCCGA |
| 2619 | FBP1 | CCGTCACTGAGTACATCCAG |
| 2620 | FBP1 | AGATAAACACGCCATCATAG |
| 2621 | FBP1 | GGACACAAGGCAATCGATGT |
| 2622 | FBXO15 | TGCGTACCTGAGGGCCTCTT |
| 2623 | FBXO15 | AAACCTGTCAACCCTTACAC |
| 2624 | FBXO15 | ATGCCGGAGGTGGACAGCAC |
| 2625 | FBXO15 | CTCCCAGTGCTGTCCACCTC |
| 2626 | FBXO15 | GCTGTGAGCCTTCTGTGTAC |
| 2627 | FBXO15 | TCACACATCCAGTACACAGA |
| 2628 | FBXO3 | TGTTCATACCGAATTCACAA |
| 2629 | FBXO3 | CTTTATAGAGGGTGCTCGAG |
| 2630 | FBXO3 | TATGTCAAAAATGTTGTATC |
| 2631 | FBXO3 | GCTATTGACATGTTTATTAT |
| 2632 | FBXO3 | ATAAACATGTCAATAGCAGC |
| 2633 | FBXO3 | AAATAAAATACCTGAAAATT |
| 2634 | FBXO41 | GGACCGCTCTGAGCCCCCGT |
| 2635 | FBXO41 | GTATTCTGCAGCCCGCCCCG |
| 2636 | FBXO41 | ACCCCGCCGACACAGCACTG |
| 2637 | FBXO41 | CAGCCCCTCACGCTCCAATG |
| 2638 | FBXO41 | CATGGCTCCTCTCCGAGCAC |
| 2639 | FBXO41 | GGCTTACCCTGTGCTCGGAG |
| 2640 | FBXO43 | GACTCCGATAAGTAATCTTG |
| 2641 | FBXO43 | TGACCGCAGAGAGCCTATGC |
| 2642 | FBXO43 | CTTAGATGTCAAAGTTACGT |
| 2643 | FBXO43 | ACAACTGAAAACAGATTCTG |

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|---|---|---|
| 2644 | FBXO43 | AGATGAGAGAATTTCTTGTT |
| 2645 | FBXO43 | TTTGGAAAGTAAGCAGAAAT |
| 2646 | FBXO48 | CCCCATGTATCTGCATCCAT |
| 2647 | FBXO48 | GCAGGGCTTCATTGACATGC |
| 2648 | FBXO48 | TCACACAGAAGCGAACTCTG |
| 2649 | FBXO48 | TCTTTCAGGTGATACTGCTG |
| 2650 | FBXO48 | CGTGTTTCACTTTACTCTTC |
| 2651 | FBXO48 | AGAGTAAAGTGAAACACGAA |
| 2652 | FBXW11 | CATCACTTTACGCCGTGTCC |
| 2653 | FBXW11 | GTGGCTAGGCTGCGCCAACC |
| 2654 | FBXW11 | CTGATGATCCACTAACAACC |
| 2655 | FBXW11 | GCCCAGTGTCAGATGTCTCC |
| 2656 | FBXW11 | GTCAAAGTCTACTACATTGA |
| 2657 | FBXW11 | GCATTGCCTGTCTCCAGTAC |
| 2658 | FCGR1A | CTGGGAGCAGCTCTACACAG |
| 2659 | FCGR1A | CACTGTGTAGAGCTGCTCCC |
| 2660 | FCGR1A | TCACCCACTTGCCCATCAAC |
| 2661 | FCGR1A | TCTCTTGCAGTTCCAGTTGA |
| 2662 | FCGR1A | GCTTTCCCATGCCTGAGCAA |
| 2663 | FCGR1A | TTCAGGCTGGCTACTACTGC |
| 2664 | FCGR1B | TCCAGCAGAGTCTTCATGGA |
| 2665 | FCGR1B | TCCTTCCATGAAGACTCTGC |
| 2666 | FCGR1B | TCTCTTGCAGTTCCAGTTGA |
| 2667 | FCGR1B | TCACCCACTTGCCCATCAAC |
| 2668 | FCGR1B | TCTCCAAGTAGACACCACAA |
| 2669 | FCGR1B | TCTGTGGATTTCCAGCTGTA |
| 2670 | FCGRT | ACCGCCAAGTTCGCCCTGAA |
| 2671 | FCGRT | TCATGAACTCCTCGCCGTTC |
| 2672 | FCGRT | CAGGCGAGGACACCGCGGTA |
| 2673 | FCGRT | CCCGCAGGCTATTGTAGCTC |
| 2674 | FCGRT | TCGGGCCTTCAGGCGCATGG |
| 2675 | FCGRT | GACGATTCCCACCACGAGCA |
| 2676 | FCHO2 | AGATACCTATAAACTCTATG |
| 2677 | FCHO2 | ATTTAACAGAGCTACCATAG |
| 2678 | FCHO2 | GCAAGCAATTATTCACAACT |
| 2679 | FCHO2 | GAAAATGACAGAAACAGCTC |
| 2680 | FCHO2 | CAAAAATTTGCTGAGTCAAA |
| 2681 | FCHO2 | TGTTATTTATAAATTCTTCA |
| 2682 | FCN3 | TCGCATAGTGGGCGAAAGTA |
| 2683 | FCN3 | TGAGGTAGACCACTACCAGC |
| 2684 | FCN3 | GAGATCCAGTGAACCTGCTC |
| 2685 | FCN3 | GTCCTCCTGCCCAGTTGTCC |
| 2686 | FCN3 | CCCCTCTCACCTTGAGGACC |
| 2687 | FCN3 | CCCATCTTGCCTGGTGGTCC |
| 2688 | FEN1 | AGCCCGCCGCTCACTGCGTT |
| 2689 | FEN1 | GCCGTTCTCCATCATGCGAA |
| 2690 | FEN1 | CTACCGCACCATTCGCATGA |
| 2691 | FEN1 | AAGCCGCCACAGCTCAAGTC |
| 2692 | FEN1 | ATGAGGTCCACAGCCCGCTT |

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|---|---|---|
| 2693 | FEN1 | AGGCTGAGTAAGAGCCGCCA |
| 2694 | FGF17 | TGCTGTAGAGTTGGTACTCG |
| 2695 | FGF17 | GGTGGCGGAGATGCGACGCC |
| 2696 | FGF17 | CAGCCCCTTTGATGCGAACC |
| 2697 | FGF17 | AGTACATCTGTATGAACAAG |
| 2698 | FGF17 | GCACACTTACAGAGTGAGGT |
| 2699 | FGF17 | GATTCTCTGCTGTCAAACTC |
| 2700 | FGF5 | GAGAAGCGTCTCGCCCCCAA |
| 2701 | FGF5 | CTGCCGGTCCGGCGCCCCGA |
| 2702 | FGF5 | GGAAATATTTGCTGTGTCTC |
| 2703 | FGF5 | CTTGCAGTCATCTGTGAACT |
| 2704 | FGF5 | AGCCCCTCGGGGCGCCGGAC |
| 2705 | FGF5 | AGCGGGTCCGGGTTGCCCTT |
| 2706 | FGFR3 | GGGGACGGAGCAGCGCGTCG |
| 2707 | FGFR3 | GACGCGCTGCTCCGTCCCCA |
| 2708 | FGFR3 | CGCGCTGCGTGAGCCGCTGC |
| 2709 | FGFR3 | CCCGTCTTCGTCATCTCCCG |
| 2710 | FGFR3 | CCCCACCAGGACACGCTCCG |
| 2711 | FGFR3 | CCTTGCAGACGCTCCATCCT |
| 2712 | FGL1 | GTTTATTGTGACATGTCCGA |
| 2713 | FGL1 | GACCCGGGTCAAACAGCAAC |
| 2714 | FGL1 | GTAATTCAGAGACGATCTGA |
| 2715 | FGL1 | GAGAATACTGTCATTGATCT |
| 2716 | FGL1 | GGATGGAAAGACTATGAAAA |
| 2717 | FGL1 | CTTCACTTCTTGACCACTCA |
| 2718 | FH | CCAGTCTGCCATACCACGAG |
| 2719 | FH | AGCGGCCGCTGAAGTAAACC |
| 2720 | FH | AAAGTTCATCGTAGATCTCA |
| 2721 | FH | GCGCCATAATACTTATCATT |
| 2722 | FH | CGATCATGTTAATAAAAGCC |
| 2723 | FH | ACCCCAGTTATTAAAGCTTT |
| 2724 | FITM2 | CCAGGGCAGGTAGCGCCGCA |
| 2725 | FITM2 | GCCCGTGTAGTGTTCGATGT |
| 2726 | FITM2 | GAGATCCGGCATGGAGCATC |
| 2727 | FITM2 | TTTCCACAACTTGTCCCAGA |
| 2728 | FITM2 | GCAACGGGGACAACTCCTTG |
| 2729 | FITM2 | GGACGTTGCGCTTGTTGCTG |
| 2730 | FKBP11 | TCGAAACCGAAAGTCCCGTC |
| 2731 | FKBP11 | TTCTATAACCAGAGGGTCTC |
| 2732 | FKBP11 | GTCTTCTCGACATGTGTGTG |
| 2733 | FKBP11 | TCCTCACCAGGGTCTCCACT |
| 2734 | FKBP11 | TATAGAACTTGGCCAAAAGC |
| 2735 | FKBP11 | CCCCAGGGAAGCTTGGTAGA |
| 2736 | FKTN | GTGAGTCTATCCCGTCTAGC |
| 2737 | FKTN | ACTTACCTGTCAAAAGCTCC |
| 2738 | FKTN | GTGTGCTATCAAATCCAATT |
| 2739 | FKTN | TTGCACTGCAGTATCACCTA |
| 2740 | FKTN | TCTTATTGATCCTTTGATAC |
| 2741 | FKTN | TTGGATTTGATAGCACACAG |

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|---|---|---|
| 2742 | FLCN | TGCTCCGACCGAGGATACCT |
| 2743 | FLCN | CGCCCGTTACCAGGCAAAGG |
| 2744 | FLCN | GGAATCATCGATGAGCTCCA |
| 2745 | FLCN | CTGGTGGCTGACGTATTTAA |
| 2746 | FLCN | TGATGATGCTGTACCAGCGC |
| 2747 | FLCN | TCACGCCATTCCTACACCAG |
| 2748 | FLG | TGTATCGCGGTGAGAGGATC |
| 2749 | FLG | GTCAGACTCTAGTACCGCTA |
| 2750 | FLG | CCAAAAGATGTCTACTCTCC |
| 2751 | FLG | ATTGAGTAAAAAAGAGCTGA |
| 2752 | FLG | TCATCTGCAGTCAGCGATCG |
| 2753 | FLG | GTCATTACGAGTTTGTCTGC |
| 2754 | FLRT3 | GCGTAGTTCTTCTATAGTCC |
| 2755 | FLRT3 | AAGCAATGAACCCATCTCGA |
| 2756 | FLRT3 | GACTATAGAAGAACTACGCT |
| 2757 | FLRT3 | CCACGCACGTTGACCTTCAC |
| 2758 | FLRT3 | CATCTTGCACCCGCAATACC |
| 2759 | FLRT3 | ATCTGTGTGTCGCTGCGATG |
| 2760 | FLT1 | TTGGTCAATTCGTCGCCTTA |
| 2761 | FLT1 | TTCCCTCGCCGGAAGTTGTA |
| 2762 | FLT1 | TGGTCCTACCATACAACTTC |
| 2763 | FLT1 | AGACACTGCATCTCCAATGC |
| 2764 | FLT1 | TATACTTGTCGTGTAAGGAG |
| 2765 | FLT1 | ACCCAGCACATCATGCAAGC |
| 2766 | FMO2 | TCTGAGTGACAACCTTCCAT |
| 2767 | FMO2 | TGCTGTCTTTGACGCAGTTA |
| 2768 | FMO2 | AGAGATACGGCTCATGACCC |
| 2769 | FMO2 | TGCGGAGCATAGAACGAAAC |
| 2770 | FMO2 | ATTTGAGGGAAAACGCATCC |
| 2771 | FMO2 | ATTGGCGGCTATGGAAATAT |
| 2772 | FN1 | GACCTACCTAGGCAATGCGT |
| 2773 | FN1 | TACAAACCAACGCATTGCCT |
| 2774 | FN1 | GCTCATAAGTGTCACCCACT |
| 2775 | FN1 | GAATGGACCTGCAAGCCCAT |
| 2776 | FN1 | TCACACACCTATGGGCTTGC |
| 2777 | FN1 | GACTGTACCTGCATCGGGGC |
| 2778 | FNDC7 | GTGTCCATTATGCGAGCCAA |
| 2779 | FNDC7 | GAGAGTTCCGGCTTCTAAAC |
| 2780 | FNDC7 | ATCAGATCCATCAGCGCTGC |
| 2781 | FNDC7 | TGAAATACCCACTATTGATC |
| 2782 | FNDC7 | CAGGTTGCTTCAGCAAAATC |
| 2783 | FNDC7 | ATTCCATGCATAGGCCTTTA |
| 2784 | FOXA1 | GTTGGACGGCGCGTACGCCA |
| 2785 | FOXA1 | GTAGCTGCGCTTGAACGTCT |
| 2786 | FOXA1 | CAGCTACTACGCAGACACGC |
| 2787 | FOXA1 | GTAGTAGCTGTTCCAGTCGC |
| 2788 | FOXA1 | CATGTTGCCGCTCGTAGTCA |
| 2789 | FOXA1 | ACTGCGCCCCCCATAAGCTC |
| 2790 | FOXB1 | CGGCTTCAACGGCACGCCGT |

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|---|---|---|
| 2791 | FOXB1 | CCACACGTGTATGGCTCCGC |
| 2792 | FOXB1 | TCTGGTCGCTGTACGTGTTG |
| 2793 | FOXB1 | CCGCGCGATGATGTTCTCGA |
| 2794 | FOXB1 | CCATCGAGAACATCATCGCG |
| 2795 | FOXB1 | GCAGCGTTTGGCCCGCCGCG |
| 2796 | FOXE1 | CACGAACCGATCTATCCCAC |
| 2797 | FOXE1 | GCGCCCGTAGAAGTCCACCG |
| 2798 | FOXE1 | CTCGAACATGTCCTCCGCGT |
| 2799 | FOXE1 | GACGCCGCGGGGTAGTAGAC |
| 2800 | FOXE1 | CGGCCTCGCGCGGGATCTTG |
| 2801 | FOXE1 | CCCGGCTTACATGCACGACG |
| 2802 | FOXH1 | TGGCAGAACGGAGGTGCGCG |
| 2803 | FOXH1 | TGGCCGGCCGTGCAGCACGT |
| 2804 | FOXH1 | GCGGTTTCAGATCATCCGTC |
| 2805 | FOXH1 | GGGAGCGGCCTGAATCACCA |
| 2806 | FOXH1 | CTCCAACCGATGCTTCCGCA |
| 2807 | FOXH1 | CAAGCCCCCCTACACCTACT |
| 2808 | FOXM1 | CATGCCCAACACGCAAGTAG |
| 2809 | FOXM1 | TCTCCCGTTTCTGCTCGCAA |
| 2810 | FOXM1 | GCGGCCACCCTACTCTTACA |
| 2811 | FOXM1 | CTTCGAGACCATCAGCGTCC |
| 2812 | FOXM1 | ATAGCCTATCCAACATCCAG |
| 2813 | FOXM1 | AACTCATCTTTCGAAGCCAC |
| 2814 | FOXN3 | GCCTGACATCCGATTAGAAG |
| 2815 | FOXN3 | CCCTCTTCTAATCGGATGTC |
| 2816 | FOXN3 | TCACAACCTGCTTGTATCTC |
| 2817 | FOXN3 | GCACATCAGGTCCACCCATC |
| 2818 | FOXN3 | GCTTACCTTTGATATGCCTG |
| 2819 | FOXN3 | ACTCCCCCTGAGATACAAGC |
| 2820 | FOXP3 | CCCACCCACAGGGATCAACG |
| 2821 | FOXP3 | TTCGAAGACCTTCTCACATC |
| 2822 | FOXP3 | AGCTCTGGGGCACAGCCGAA |
| 2823 | FOXP3 | CCACTTACAGGCACTCCTCC |
| 2824 | FOXP3 | CCTGGACACCCATTCCAGGC |
| 2825 | FOXP3 | TGCCCCCCAGCTCTCAACGG |
| 2826 | FZD10 | CGCGAACTCGTGCAACTGGA |
| 2827 | FZD10 | GGGCTCGTCCGAGCCGTTGT |
| 2828 | FZD10 | GCTCAAGTGCTCCCCGATTA |
| 2829 | FZD10 | GGACGTGTACTGGAGCCGCG |
| 2830 | FZD10 | AAAGTAGCAGGCGATCACAC |
| 2831 | FZD10 | CGCCCGTCTTCATCACCCTC |
| 2832 | FZD5 | TCGCGACACTTGCACACGAA |
| 2833 | FZD5 | CAGAACCTGAACTCGCTGCG |
| 2834 | FZD5 | CGCGCGCCAAGCCCGAGTAC |
| 2835 | FZD5 | CCATGCCGAAGAAGTAGACC |
| 2836 | FZD5 | AGCAGCACTACCGCGAGAGC |
| 2837 | FZD5 | AGCGGGGCATTCGCCCCCCG |
| 2838 | FZD9 | TGCTACCGCAAGATAGCAGC |
| 2839 | FZD9 | ACAAGGACTTCGCGCTGGTC |

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|---|---|---|
| 2840 | FZD9 | TGGCACGCACTGCCACTATA |
| 2841 | FZD9 | GGCGGCGCGGCACTGGAGAT |
| 2842 | FZD9 | GGGCGCGCTCTACGTGATCC |
| 2843 | FZD9 | CGTGCCACGTCCGTAGCTCC |
| 2844 | GAB1 | GGGATACTACACGTTTCCAC |
| 2845 | GAB1 | TCTACACTCGATGTCCCAGA |
| 2846 | GAB1 | AGATGGTTCGTGTTACGCAG |
| 2847 | GAB1 | CTACTTGGTAGCAGACAGCG |
| 2848 | GAB1 | GATAGATCTAGTTCACTTGA |
| 2849 | GAB1 | AGTGAACTAGATCTATCACT |
| 2850 | GABRQ | CCGTACCGCACCGTTCCATC |
| 2851 | GABRQ | TCTCATGCATCCGATAGTCC |
| 2852 | GABRQ | GTAGTTGCCCTCCGCGAGCC |
| 2853 | GABRQ | GTCCGCCTGAGACCGAATTT |
| 2854 | GABRQ | GACGACTTCGGGCACAGCAG |
| 2855 | GABRQ | AAATTGTGCAAATGAAGCTG |
| 2856 | GAD1 | TCGTCCTAGCGTACGATACC |
| 2857 | GAD1 | TTGGATATTATTGGCCTAGC |
| 2858 | GAD1 | AGAAGTCAGTCTCTGTGCGC |
| 2859 | GAD1 | TATCCAATCCAGTGGAGAGC |
| 2860 | GAD1 | TCCATGGGCCACGCCGCACC |
| 2861 | GAD1 | GTGCCATAGGCTTCTTGCAA |
| 2862 | GALC | TCAACCACCACTCGTATCCT |
| 2863 | GALC | GCCCTATCGTTCTCAGATAT |
| 2864 | GALC | AATCCCAATATTACACTCAT |
| 2865 | GALC | TGTACACACCTTAATATAAT |
| 2866 | GALC | CTGGGTAATTTACTAGAAGT |
| 2867 | GALC | ATATAATGCCAATTATATTA |
| 2868 | GALNTL6 | CACTTAGCATGACGAATATC |
| 2869 | GALNTL6 | ACCATGATGACTCAGCTTAC |
| 2870 | GALNTL6 | TCTGTACAAGGATAAGCACC |
| 2871 | GALNTL6 | GAGATGGGCAATTCTATTCA |
| 2872 | GALNTL6 | AGAGACCAGAGACCAACGTT |
| 2873 | GALNTL6 | AATAGAATTGCCCATCTCCC |
| 2874 | GALR2 | GGAGACCAGCGCGTAAACGA |
| 2875 | GALR2 | GCAGGCCCGCGCAGATCGTG |
| 2876 | GALR2 | TGGGCAGCCCGAGACGTTCA |
| 2877 | GALR2 | CAGCGGCACCATGAACGTCT |
| 2878 | GALR2 | CCGCCTCGCTCATGTGCAAC |
| 2879 | GALR2 | CTACTACCGCCAGTCGCAGC |
| 2880 | GAPDH | TTCCTCACCTGATGATCTTG |
| 2881 | GAPDH | TCTGCTGTAGGCTCATTTGC |
| 2882 | GAPDH | TTCCACTCACTCCTGGAAGA |
| 2883 | GAPDH | ACTCACCCCAGCCTTCTCCA |
| 2884 | GAPDH | CACTGGCGTCTTCACCACCA |
| 2885 | GAPDH | TTCCAATATGATTCCACCCA |
| 2886 | GATA3 | GTACTGCGCCGCGTCCATGT |
| 2887 | GATA3 | TACGTGCCCGAGTACAGCTC |
| 2888 | GATA3 | AACCACGTCCCGCCCTACTA |

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|---|---|---|
| 2889 | GATA3 | TCCGGGGAGACGTCCTTCGG |
| 2890 | GATA3 | CCCTCATTAAGCCCAAGCGA |
| 2891 | GATA3 | AGAACTTACCAGCCTTCGCT |
| 2892 | GATAD1 | CTGCACTCTTCTCGCAATAC |
| 2893 | GATAD1 | GATCCCGCCTCCTATATCAT |
| 2894 | GATAD1 | CGTGACTTGAAATACTCAGA |
| 2895 | GATAD1 | GCTACATATGGACTCATGTT |
| 2896 | GATAD1 | AACTGACTCAGGAGCTTTGA |
| 2897 | GATAD1 | TGCAGAATCAATCTTCTACA |
| 2898 | GATAD2A | TCGGAGAGCACAATCACGTC |
| 2899 | GATAD2A | GAACTCGTTGTTGGCGGCGC |
| 2900 | GATAD2A | CCCTCGAGCCCGAGAGTGAA |
| 2901 | GATAD2A | CAACAACGAGTTCATCTACC |
| 2902 | GATAD2A | TTCTGAGTGCCCCGAACAAG |
| 2903 | GATAD2A | GGCACTCAGAACATTCCTGC |
| 2904 | GATAD2B | ACGATTGGAAGAAGCCCGAC |
| 2905 | GATAD2B | TCTTACCGGTTGATAATTGA |
| 2906 | GATAD2B | GGAGTTAGCCTTCCTCGCTC |
| 2907 | GATAD2B | GCCCCGCTGACCCTGTAGCT |
| 2908 | GATAD2B | TTGTCTAGTGAGCCAGAGCG |
| 2909 | GATAD2B | GATGCTGCATTCTGTACAAC |
| 2910 | GDPD3 | AGACCGGCGCATGGTTCGTC |
| 2911 | GDPD3 | CATCCCTGTTTAGGCCCGAC |
| 2912 | GDPD3 | CCTCCAGACGAACCATGCGC |
| 2913 | GDPD3 | TCAGCTGACAGTCGAGCTCC |
| 2914 | GDPD3 | CTGGAGGTTTACTTCTCTCC |
| 2915 | GDPD3 | CACAGGATCTGGAGAGCTGC |
| 2916 | GEMIN7 | TGCGGAGGTAACGCTCCCGA |
| 2917 | GEMIN7 | ATGGACGCAGAGCCCCCTTG |
| 2918 | GEMIN7 | GCGTTACCTCCGCAGCCTGC |
| 2919 | GEMIN7 | GGTGAGCTTCACGTTGCACG |
| 2920 | GEMIN7 | GCTCACCTGATGACCCACCA |
| 2921 | GEMIN7 | GTGCGTGTGGCCGCCCACTT |
| 2922 | GFOD2 | GAGCTGCGGGTAGTAGCGCG |
| 2923 | GFOD2 | AGTCATCGCTAGTGACGTGC |
| 2924 | GFOD2 | CAGATATCCGTGAAGGCTCT |
| 2925 | GFOD2 | TGGCAGCTCCGCCCGAGTTC |
| 2926 | GFOD2 | GGCAGGGCGACCGCCGCACC |
| 2927 | GFOD2 | CTGCAGGACGCCTCGTCGCC |
| 2928 | GFPT2 | GATCTTCGAAACCCTCATCA |
| 2929 | GFPT2 | ATCACAGGTGTGGCGATCGA |
| 2930 | GFPT2 | CGAAGATCTCCTTCCTCGTC |
| 2931 | GFPT2 | CAAAGAAAGACACATTCAGC |
| 2932 | GFPT2 | ACATGAACTACAGAGTCCCC |
| 2933 | GFPT2 | CTCTGTACTCCAGCCGCTGC |
| 2934 | GGACT | GTACCCGCAGCACCGTGCGC |
| 2935 | GGACT | TCCGCAGCCTTTCGGGCGCG |
| 2936 | GGACT | ATGGCCCTAGTCTTCGTGTA |
| 2937 | GGACT | GGGTTGTAGCGCAGCCCGTG |

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|---|---|---|
| 2938 | GGACT | CGAGCGGATGCTGCGCTTTC |
| 2939 | GGACT | ACGGGCTGCGCTACAACCCC |
| 2940 | GIMAP1 | GGGCGCCCATTACTCCAACG |
| 2941 | GIMAP1 | GTTGGGTCGGTTCACCGCCC |
| 2942 | GIMAP1 | TCCAGGTAAGCATGGGAGGA |
| 2943 | GIMAP1 | ACAGATGAAGAAAATGTCTA |
| 2944 | GIMAP1 | GGGCGGTGAACCGACCCAAC |
| 2945 | GIMAP1 | TGTTGCTCACGTAATCGTGC |
| 2946 | GIMAP4 | CTTGTCGTAGTTGACACACC |
| 2947 | GIMAP4 | GCGACAATGGCAGCCCAATA |
| 2948 | GIMAP4 | GCCCAATGCTGAAACGTCCA |
| 2949 | GIMAP4 | TGAAGCTCATACTGCCGTAT |
| 2950 | GIMAP4 | AATGCAGCGAATAATCTCCT |
| 2951 | GIMAP4 | TGTTGTTTAACGCACAGTAG |
| 2952 | GIMAP6 | GCCATCGTCTTATCCGCCCC |
| 2953 | GIMAP6 | CCCTGGGGCGGATAAGACGA |
| 2954 | GIMAP6 | ATCCTGGGACAGCTCTTCTG |
| 2955 | GIMAP6 | AGAATATGAACAAATTCCCC |
| 2956 | GIMAP6 | CAGATAGCGTCTGCCACCTC |
| 2957 | GIMAP6 | GTCCCCCCAGGTCTCGCCAG |
| 2958 | GIMAP8 | CCAAAGACTCAACCTTGCGA |
| 2959 | GIMAP8 | CCTTCGCAAGGTTGAGTCTT |
| 2960 | GIMAP8 | GTCCGGGTATCCCCATACAC |
| 2961 | GIMAP8 | ACGCGATTATGCTGTTCACC |
| 2962 | GIMAP8 | AGTTTCGATCATTGATGCTC |
| 2963 | GIMAP8 | CACAGGACCCGAGCAGAATC |
| 2964 | GIPR | CCAGCAGACGTACATATCGA |
| 2965 | GIPR | CCTTCGATATGTACGTCTGC |
| 2966 | GIPR | CACACCTGAAGGCGGTTCCG |
| 2967 | GIPR | GCAGCCGCGGAACCGCCTTC |
| 2968 | GIPR | GGTTTCGTCCTCCGCCAGTG |
| 2969 | GIPR | ACCGCTCCAAGATGAGCCTT |
| 2970 | GJB6 | ACGCTGCACACTTTCATCGG |
| 2971 | GJB6 | TTTCCGAGTCATGATCCTCG |
| 2972 | GJB6 | GATTTGCATGCTGCTTAACG |
| 2973 | GJB6 | GATCCACACCTTCCCGATGC |
| 2974 | GJB6 | ACGAAACCACTCGCAAGTTC |
| 2975 | GJB6 | CGTCTGCAACACACTGCAAC |
| 2976 | GLI4 | GCGGCCGCTCGCACTTCTTC |
| 2977 | GLI4 | CAAGCGCTTCCGCGGCTGGT |
| 2978 | GLI4 | GCTCTCCCAGCCGTCCGACC |
| 2979 | GLI4 | GAGTACCATGTTGATGCCCA |
| 2980 | GLI4 | TGCTCACTCACCGGGCCAGA |
| 2981 | GLI4 | CCTGGTGATGAGAGACTGAC |
| 2982 | GLUD2 | ACGCTCCATTGTGTATGCCA |
| 2983 | GLUD2 | CCGGGACGGCAGCAGCGCTT |
| 2984 | GLUD2 | TGCCGCGATGTACCGCTACC |
| 2985 | GLUD2 | CAACCACTCGGCCGCGTTGC |
| 2986 | GLUD2 | CGGCCACCAACTCGCTGTAG |

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|---|---|---|
| 2987 | GLUD2 | ATGCACCCGATATACTGTCT |
| 2988 | GMFB | GGATATCGAGGTTGTCGTTC |
| 2989 | GMFB | TGATGTTGCCGAAGATTTAG |
| 2990 | GMFB | GCTCCTCATCCAGTACCACC |
| 2991 | GMFB | ACGCCTGGTGGTACTGGATG |
| 2992 | GMFB | AGTTCATCTTTAAGTTCATC |
| 2993 | GML | ATACTTACACTGAGCGCGCA |
| 2994 | GML | ATACAGCGCCTAATATGATA |
| 2995 | GML | GTCAGCAATATATTGCCATG |
| 2996 | GML | CATTTATGACCGCACAGTCA |
| 2997 | GML | ATGTCCCTTTCAAGATTAGT |
| 2998 | GML | CTTTGCCTTACTCCTAGCCA |
| 2999 | GMPR2 | GGTGCCCACAGTATCCATAT |
| 3000 | GMPR2 | AGCACTATAGCCTCGTTCAG |
| 3001 | GMPR2 | AGTGTTACCTCAAGACAGTC |
| 3002 | GMPR2 | CCCTACCTTACAGAGAACCT |
| 3003 | GMPR2 | GATGCTGCTCATGGCCTCAA |
| 3004 | GMPR2 | TAGGCTCTGTGTGTACTACT |
| 3005 | GNA11 | CGTTGACCGCATCGCCACCT |
| 3006 | GNA11 | ACTGACGTACTGATGCTCGA |
| 3007 | GNA11 | GAAAGGGTACTCGATGATGC |
| 3008 | GNA11 | TGTTCTGCTCGTACTTGTAG |
| 3009 | GNA11 | AGGCCAATGCGCTCCTGATC |
| 3010 | GNA11 | CCCCCAGGCACGGGCGAGAG |
| 3011 | GNG12 | TCAGGTTTCGAAGGCATCAG |
| 3012 | GNG12 | AAGCACCAACAATATAGCCC |
| 3013 | GNG12 | CCTGGCATGTTCCTCACAGT |
| 3014 | GNG12 | AGCCTCCATTGAAAGAATAA |
| 3015 | GNG12 | GTTGGTATTCCTATCAGCAA |
| 3016 | GNG12 | AACTTCAGAAAACCCTTTCA |
| 3017 | GOLGA7 | ACTCGCAGTCCTCGCTCAAT |
| 3018 | GOLGA7 | CTGACAGACCCTATTGAGCG |
| 3019 | GOLGA7 | ACCCGGTTCTCCAGCTCCGC |
| 3020 | GOLGA7 | AACAACCTTCGAGATATGAC |
| 3021 | GOLGA7 | CGGCGCCTGCTGCGGCCTCA |
| 3022 | GOLGA7 | ATATACCATCTTCCTATGCA |
| 3023 | GOT1 | ACATTCGGTCCTATCGCTAC |
| 3024 | GOT1 | AGAAGATCGTGCGGATTACT |
| 3025 | GOT1 | TTCTTAGCGCGTTGGTACAA |
| 3026 | GOT1 | GGAACAGGTGCACTTCGAAT |
| 3027 | GOT1 | CTCTGCATCCCAGTAGCGAT |
| 3028 | GOT1 | CCATTCTCCAGCATATCGCA |
| 3029 | GPC4 | TTTGCGAGGGACATCTCCGA |
| 3030 | GPC4 | GCAGCCCGTACTTTCGCTCA |
| 3031 | GPC4 | TCATCGTTGCAAACGTTGCT |
| 3032 | GPC4 | GCAACGTTTGCAACGATGAG |
| 3033 | GPC4 | TCACGTTACAAGAAGTTTGA |
| 3034 | GPC4 | TCATTTGAAGATCTGTCCCC |
| 3035 | GPC6 | GTGGGAAGCCCCCGACAGTA |

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|---|---|---|
| 3036 | GPC6 | CTACTGTCTCAACGTCATGA |
| 3037 | GPC6 | ACCGTCAAATTTCTTATGCC |
| 3038 | GPC6 | TCAGCTGAAACATCCGTTCC |
| 3039 | GPC6 | ACTGACCAGCTCAAGCCATT |
| 3040 | GPC6 | ACTCGAATTTGAAAACCTTG |
| 3041 | GPI | CTCTTGCGCCGCCGCTTTGC |
| 3042 | GPI | CAGCAAAGCGGCGGCGCAAG |
| 3043 | GPI | CCGGTCAAACACACCCATCC |
| 3044 | GPI | TCAGCTCGGAGCGGTGCTCG |
| 3045 | GPI | CCGCCTCTTCGATGCCAACA |
| 3046 | GPI | TCACATCCTTGCCGTCTACC |
| 3047 | GPN3 | AGACATCCGGGAACTGATCG |
| 3048 | GPN3 | CAGCACATTTGCAAATCGCG |
| 3049 | GPN3 | ACACTTCAACTACTCCGTGA |
| 3050 | GPN3 | CATCCTTGCGCCACGTGCTT |
| 3051 | GPN3 | GCAAAATACCAATCCTCCGT |
| 3052 | GPN3 | GGTTTACAACTTGGACAGAC |
| 3053 | GPR173 | ACAAGATGGCGTTACCCGCC |
| 3054 | GPR173 | TGCGGTGACGATACTCGAAG |
| 3055 | GPR173 | CACCTACAAGTTTATTCGGG |
| 3056 | GPR173 | CTCCTCCCGAATAAACTTGT |
| 3057 | GPR173 | GCCAAAGCCGGCGATCCAGT |
| 3058 | GPR173 | GACGGCAGAGCGTATGCCAT |
| 3059 | GPR50 | GGTGCGAGGATCGTACTCGA |
| 3060 | GPR50 | CACGGTCTTGTTCACGAGCT |
| 3061 | GPR50 | GCCGATTAGGTCTACAACGA |
| 3062 | GPR50 | CATCTTTATGTTCTGCGCGA |
| 3063 | GPR50 | CACTGAAGATCCGTTCGTAC |
| 3064 | GPR50 | AATTGCGAACCTCAGCAAGT |
| 3065 | GPR68 | TTCCAGACCCCTAACTCGCC |
| 3066 | GPR68 | CCGCCCGACCCTGGCGAGTT |
| 3067 | GPR68 | GGTGGTCTATGTTACCGTGC |
| 3068 | GPR68 | GTCGGCGACGCAGTTGAAGC |
| 3069 | GPR68 | GTCGATGGTACAGCTCATCG |
| 3070 | GPR68 | GCATCCTGCGCGCCGTGCGC |
| 3071 | GPR78 | GGCGCTGCTATCCAACGCAC |
| 3072 | GPR78 | CGCCTGCGACCGCGCTATGC |
| 3073 | GPR78 | CACCGCGCCACCAGGAAGAT |
| 3074 | GPR78 | TCGTCACCGTGAACGCCCAG |
| 3075 | GPR78 | TCACGTACTCTCTGCTCCGC |
| 3076 | GPR78 | ACCCACCTGGTCATGACATA |
| 3077 | GPRC5A | ACAAAGTCTTCATTGCGACG |
| 3078 | GPRC5A | TCAGTCTGACCAAGCTCGTC |
| 3079 | GPRC5A | CTCGGCCAAGCGTGGGCCCG |
| 3080 | GPRC5A | CCATCCCACGGGCCCACGCT |
| 3081 | GPRC5A | TACCTGCAGCTGAAAATGTG |
| 3082 | GPRC5A | CAACTCGTGAAGAAGAGCTA |
| 3083 | GPX4 | CACGCCCGATACGCTGAGTG |
| 3084 | GPX4 | CGTGTGCATCGTCACCAACG |

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|---|---|---|
| 3085 | GPX4 | AGAGATCAAAGAGTTCGCCG |
| 3086 | GPX4 | GCGCCCACCGGTACTTGTCC |
| 3087 | GPX4 | GCGCACAGCGCCAGTCGTCC |
| 3088 | GPX4 | GAATTTGACGTTGTAGCCCG |
| 3089 | GRB10 | CTGTGCACATCCTCGCTGTC |
| 3090 | GRB10 | GTGGAGCACCACCCGCACCT |
| 3091 | GRB10 | CGTGTCTGACTGCATGCTGC |
| 3092 | GRB10 | GAGCCAGGCCGCCGCAAAGC |
| 3093 | GRB10 | TGGCTCGGAGGTAAAGAACC |
| 3094 | GRB10 | TCCCTACCTAATCCTAGGTG |
| 3095 | GRB2 | GCAGCAGCCGACATACGTCC |
| 3096 | GRB2 | ATTATGTCACCCCCGTGAAC |
| 3097 | GRB2 | GCACCTGTTCTATGTCCCGC |
| 3098 | GRB2 | GAGCCGGGAAGTACTTCCTC |
| 3099 | GRB2 | ACGAAGAATGTGATCAGAAC |
| 3100 | GRB2 | CAGGAGCGCTCTCACTCTCT |
| 3101 | GRIN2D | GCACGCGCAACCCCGACAGC |
| 3102 | GRIN2D | ACCTATGCAGACTCTCGCCG |
| 3103 | GRIN2D | GTTCTCGGGGCCCGCGTACG |
| 3104 | GRIN2D | GGTACTTCATGAACATCACG |
| 3105 | GRIN2D | GGTTCTGGGCGCGACAGTCG |
| 3106 | GRIN2D | CCGGGATTACTCCTTCAATG |
| 3107 | GRWD1 | CGCCGTCCGTAGGTGTCCAG |
| 3108 | GRWD1 | CGTGGACCAGCGGCCATTCG |
| 3109 | GRWD1 | CTCGGTTGATGCCACCATAG |
| 3110 | GRWD1 | ATGGTGGCATCAACCGAGTT |
| 3111 | GRWD1 | CTTACACTTTACTTGTGTGC |
| 3112 | GRWD1 | CTCGCCCATGTGTCCAGCGA |
| 3113 | GSN | TGCAGTATGACCTCCACTAC |
| 3114 | GSN | GGAACACCCCGAGTTCCTCA |
| 3115 | GSN | ACCCTCCCAGGTATTGCCTA |
| 3116 | GSN | TCCTGTACCCACCCACAGGT |
| 3117 | GSN | GCAGGGTGCCCAGTCTACCC |
| 3118 | GSN | CCTCATCCAGCTGAGCAGTC |
| 3119 | GTF2A2 | ACAGATTCTGCGATAATGTG |
| 3120 | GTF2A2 | GAGCCTAGATGAGCTCATAC |
| 3121 | GTF2A2 | CCACCTGTATGAGCTCATCT |
| 3122 | GTF2A2 | TTCTATTCATTCTGTAGTAT |
| 3123 | GTF2A2 | TAAATGCAGCACTGGCTCAG |
| 3124 | GTF2A2 | CAAACTGAAGTAGAACTTGA |
| 3125 | GTF2B | ACAAAAGATCCATCTCGAGT |
| 3126 | GTF2B | TGCTCATTGTTCTCCGATTC |
| 3127 | GTF2B | GATATGATCTGTCCTGAATG |
| 3128 | GTF2B | TCCTCCACTAAAATCGCATC |
| 3129 | GTF2B | TGAGAATCTCCAACTCGAGA |
| 3130 | GTF2B | GAACAATGAGCAGTTCTGAT |
| 3131 | GTF2F1 | CTCACTGCCCGCGCCCGATT |
| 3132 | GTF2F1 | TGCCTGATTTGCCGTTGACC |
| 3133 | GTF2F1 | CGACGTATTCAGTGACATTC |

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|---|---|---|
| 3134 | GTF2F1 | ACAAAGTCAACTTTGCTACG |
| 3135 | GTF2F1 | CGTAGCAAAGTTGACTTTGT |
| 3136 | GTF2F1 | GTGAGTTCAACCGCAAGCTT |
| 3137 | GTF2H1 | GACCGTTACAGCCATCAGTT |
| 3138 | GTF2H1 | TTGCTTCTTACCTCATCTAA |
| 3139 | GTF2H1 | CCCCAAACTGATGGCTGTAA |
| 3140 | GTF2H1 | CAGCAAAACTTCTTCAGATG |
| 3141 | GTF2H1 | ACTACTAGATTTAACAGCTT |
| 3142 | GTF2H1 | GTAAATCTATCTTTGCCTTC |
| 3143 | GTF2H3 | TTACTCGCACGTAGTACAAA |
| 3144 | GTF2H3 | CAAATGCATAGATGCCGTGA |
| 3145 | GTF2H3 | CGAATTTCCCAGCACCATCA |
| 3146 | GTF2H3 | TTCAGCCGATTCTTATATCC |
| 3147 | GTF2H3 | TTAAATTCAGGAGGGTTGCC |
| 3148 | GTF2H3 | GCAAGCATTAAAGGAATCTC |
| 3149 | GTF2H5 | AACATGGTCAACGTCTTGAA |
| 3150 | GTF2H5 | TTAATTCACCCACTCGCTCC |
| 3151 | GTF2H5 | GAAGCAGTTTCTGCTGTACT |
| 3152 | GTF2H5 | GTACAGCAGAAACTGCTTCA |
| 3153 | GTF2H5 | GAATGATGAACTTCTTCCCC |
| 3154 | GTF2H5 | TAATGTCCTCCAGGAGCGAG |
| 3155 | GTF3C5 | CGAGCACCACTCGTCCCCGA |
| 3156 | GTF3C5 | AATTCTCTGCCCCGTCATTG |
| 3157 | GTF3C5 | GGTGTCCCTGAGCTCGTCGC |
| 3158 | GTF3C5 | TCTACGCAGACCCCACCAAG |
| 3159 | GTF3C5 | TGCTTTGACCGGCAAGTCAC |
| 3160 | GTF3C5 | GGAGCTGTACTTCCGGCCCA |
| 3161 | GTPBP8 | AGACCTATCTAAAAGAACGA |
| 3162 | GTPBP8 | TTTACAGTGGTGGACATGCC |
| 3163 | GTPBP8 | TACCTTACAGGAAACAACTG |
| 3164 | GTPBP8 | AGAATTTGCATTACCTTATG |
| 3165 | GTPBP8 | TTCCTCAGTTGTTTCCTGTA |
| 3166 | GTPBP8 | GAGACTCTGACTTCAACCTC |
| 3167 | GTSE1 | GTATGAATCTTTCCACGCCC |
| 3168 | GTSE1 | GGGCGTGGAAAGATTCATAC |
| 3169 | GTSE1 | GCTGTCAATGTGCCGGCCGC |
| 3170 | GTSE1 | AGATTCCAGCTAGTCCTTCC |
| 3171 | GTSE1 | CCATGTTCACGTCCCCTGCC |
| 3172 | GTSE1 | GCGATGAGCCTTCAGCCTGC |
| 3173 | GUK1 | GGCATGCTCGATGAAGTCGC |
| 3174 | GUK1 | CATCGAGCATGCCGAGTTCT |
| 3175 | GUK1 | TAGATACCACGAGGAACCCG |
| 3176 | GUK1 | GCCGCCTTCACTGCACGTGC |
| 3177 | GUK1 | ACATCAAGGCCACCGATCTG |
| 3178 | GUK1 | ACCTTTGCCGTTCTCCTCGC |
| 3179 | HABP2 | AGCGTGGGTAAGTGTGCTAC |
| 3180 | HABP2 | TCCTCAGTGTAGTACCAGTC |
| 3181 | HABP2 | GCAGTCCCCACCGTGTTCAC |
| 3182 | HABP2 | TGACACTTATTCCCAGAGAA |

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|---|---|---|
| 3183 | HABP2 | GTTCTCCCTGATGTCTTTAT |
| 3184 | HABP2 | CCAGTATGATTACAGCTACG |
| 3185 | HADHA | AAAGTCCACAAAGCCTATTG |
| 3186 | HADHA | CCATTGATGGCAGCCACAAT |
| 3187 | HADHA | AATTAACTCTCCCAATTCAA |
| 3188 | HADHA | AAATGAGATACCTTTGAATT |
| 3189 | HADHA | CAGAAGACCCTGTAAAATTG |
| 3190 | HADHA | ATACCTCAAGTCCTCCTCCC |
| 3191 | HBP1 | CTAGTGGCTATGATGTGTAC |
| 3192 | HBP1 | CACACGACTGTGCTTTCATA |
| 3193 | HBP1 | CAAAGTGATCCTACCCAATC |
| 3194 | HBP1 | CTTACCCTTTCGTGTCTTAC |
| 3195 | HBP1 | CCTGTCAGATGATGATGATT |
| 3196 | HBP1 | ATTCCTGGCCTTCAACTGTC |
| 3197 | HCAR2 | ACTATGTGAGGCGTTGGGAC |
| 3198 | HCAR2 | GCCTCACATAGTTGTCCATC |
| 3199 | HCAR2 | ACAAATTTGCACCGCCATTC |
| 3200 | HCAR2 | CATGTTGGCTATGAACCGCC |
| 3201 | HCAR2 | AAGAAGATGCCGATCCAGAA |
| 3202 | HCAR2 | TTGTGCGGATCCGCATCTTC |
| 3203 | HCFC1 | GGGTCTGGCCAATGATAGCG |
| 3204 | HCFC1 | CCCGCCGTAGATCACCAGCT |
| 3205 | HCFC1 | GAGAAGCTGTGCCCGAGTCG |
| 3206 | HCFC1 | CCGGGAGTCACATACTGCCG |
| 3207 | HCFC1 | AGCCACTTACTTATTTCCGA |
| 3208 | HCFC1 | GTTGCCGAGTGGAGACTGCG |
| 3209 | HCFC2 | GGCAACTAGCTACGAATCAG |
| 3210 | HCFC2 | ACACCGAGCGGTGGCCATCC |
| 3211 | HCFC2 | GAGAAGCTATGTCCAAGCCG |
| 3212 | HCFC2 | AATCTTCGCTTTCGTTTGCC |
| 3213 | HCFC2 | GGGATATCTCCTCTAACAGC |
| 3214 | HCFC2 | TGAGCTGCACGTCTACAACA |
| 3215 | HCLS1 | AAGACGACGCCCATAGAAGC |
| 3216 | HCLS1 | CGCTGTCGGCTTCAATGAAA |
| 3217 | HCLS1 | ATGGGGAGCCAAGACCATCG |
| 3218 | HCLS1 | TGTGCGTCCAGACCCCTCGA |
| 3219 | HCLS1 | GGGCCATGAGTATGTTGCCG |
| 3220 | HCLS1 | GTGGCTGTATATGATTACCA |
| 3221 | HDAC1 | ACACCATTCGTAACGTTGCC |
| 3222 | HDAC1 | TCACTCGAGATGCGCTTGTC |
| 3223 | HDAC1 | AGAATGCTGCCGCACGCACC |
| 3224 | HDAC1 | CTGGATACGGAGATCCCTAA |
| 3225 | HDAC1 | TTACGTCAATGATATCGTCT |
| 3226 | HDAC1 | GCACCATGCAAAGAAGTCCG |
| 3227 | HDAC2 | TCCGTAATGTTGCTCGATGT |
| 3228 | HDAC2 | TCCAACATCGAGCAACATTA |
| 3229 | HDAC2 | TACAACAGATCGTGTAATGA |
| 3230 | HDAC2 | TTCTGGTTTGTCATGTTTGA |
| 3231 | HDAC2 | AAATATGGGGAATACTTTCC |

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|---|---|---|
| 3232 | HDAC2 | CCAGAACACTCCAGAATATA |
| 3233 | HDAC4 | ACTTACCCGTACCAGTAGCG |
| 3234 | HDAC4 | TTTCCAGCGACCCTCGCTAC |
| 3235 | HDAC4 | GGTGCCTCTCCAGCTTCCGC |
| 3236 | HDAC4 | CGGCCTTACCTGGATGGCTT |
| 3237 | HDAC4 | ATGAGCTCCCAAAGCCATCC |
| 3238 | HDAC4 | GCTGCAGCAGCTCAAGAACA |
| 3239 | HDAC5 | GAAGTCGTCTCGACTGTCGT |
| 3240 | HDAC5 | CCAGCTCTTACCCGACTCGT |
| 3241 | HDAC5 | CATGAACTCTCCCAACGAGT |
| 3242 | HDAC5 | CCCGAAGCTGTCGACACAGC |
| 3243 | HDAC5 | TCCTGCTGTGTCGACAGCTT |
| 3244 | HDAC5 | GGGAGCCCACCATGCTTCTT |
| 3245 | HDHD2 | GGCTCAAGATGTCGGCATGC |
| 3246 | HDHD2 | CCGATCATCAACTAGCAGCA |
| 3247 | HDHD2 | TTTCCGCTCTAGTAAACTTC |
| 3248 | HDHD2 | AATCCCATGACCACAGCATT |
| 3249 | HDHD2 | AAACTCTCACAAGTTAAGTA |
| 3250 | HDHD2 | AACAAGTGATCCTAATGCTG |
| 3251 | HELLS | TTGGATAGGCTCGCATGTCT |
| 3252 | HELLS | TCCAGTTGTTCAACCATTGC |
| 3253 | HELLS | ATAGAGAGTCGACAGAAATT |
| 3254 | HELLS | GGACACTGCTGTGATTACCC |
| 3255 | HELLS | GGAGTCTTTAAAAGTTAAAA |
| 3256 | HELLS | ACAGAAGAAGAAAGAAAAAT |
| 3257 | HESX1 | TCTTCTCTAATATCGATACC |
| 3258 | HESX1 | GATTTCATTCCCTAGCGTGG |
| 3259 | HESX1 | TGGCATACCTGATGAGCTGC |
| 3260 | HESX1 | GGCCTGTGGGGTTTCATTAA |
| 3261 | HESX1 | TATTTCGAAGCTCTTTCTTC |
| 3262 | HESX1 | TTTAGAGTAAACTGCTATCC |
| 3263 | HGF | TCGATAACTCTCCCCATTGC |
| 3264 | HGF | CAGGCAAGATTTGTCAGCGC |
| 3265 | HGF | TGTTCTTACCTGTGTTCGTG |
| 3266 | HGF | CCCTTCAATAGCATGTCAAG |
| 3267 | HGF | ACAGTATCTATCACTAAGAG |
| 3268 | HGF | TCCACTTGACATGCTATTGA |
| 3269 | HHAT | CTTCTCGGAGTTCATCAAAC |
| 3270 | HHAT | GGTGTAGTACAGGCAGCGAA |
| 3271 | HHAT | AGGATGCGACCGACTTTGAG |
| 3272 | HHAT | CCATTTGAGACACTACCATG |
| 3273 | HHAT | TCCACTTTAGATGCAGCAGC |
| 3274 | HHAT | GGCTGGGCCGCCTTCTTTGC |
| 3275 | HHLA2 | ATCCTCGTCCAATTATCACG |
| 3276 | HHLA2 | ACAGGGCGCTGGACGATGAA |
| 3277 | HHLA2 | TCAATGAATCCCGATTCTCA |
| 3278 | HHLA2 | ACTTACCTACATGCACTGTG |
| 3279 | HHLA2 | TCAGAGATGTTATGAGAATG |
| 3280 | HHLA2 | ATTCTCATAACATCTCTGAG |

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|---|---|---|
| 3281 | HIBADH | GGTGTAGGAGCTGCACGATC |
| 3282 | HIBADH | AGCTCCACAGTACACCACGT |
| 3283 | HIBADH | GCAGCCGCCGGCTCCAGTAC |
| 3284 | HIBADH | GGCAGCTCCGAGGAGCCGTA |
| 3285 | HIBADH | AACTGCAGGATCAATAGTGC |
| 3286 | HIBADH | TACCACTTACCACCAGAAAC |
| 3287 | HIF1A | TTCTTTACTTCGCCGAGATC |
| 3288 | HIF1A | CCTCACACGCAAATAGCTGA |
| 3289 | HIF1A | TGTTTACAGTTTGAACTAAC |
| 3290 | HIF1A | TACTCATCCATGTGACCATG |
| 3291 | HIF1A | TTTAAATGAGCTCCCAATGT |
| 3292 | HIF1A | GTTATGGTTCTCACAGATGA |
| 3293 | HIST1H2AM | TGAGAGCCACCACAAAGCTA |
| 3294 | HIST1H2AM | AAAACCCGCTCCTCTAGAGC |
| 3295 | HIST1H2AM | AGGCGGTGCACTCGTCCTAC |
| 3296 | HIST1H2AM | AAATTGGAGCCCAGCTCTAG |
| 3297 | HIST1H2AM | CAGAACACCGCCCTGAGCGA |
| 3298 | HIST1H2AM | CTTACTTGCCCTTAGCTTTG |
| 3299 | HIST1H2BF | ACGTTAGAATTACTTAGAGC |
| 3300 | HIST1H2BF | GTCCGCTCCTGCTCCAAAAA |
| 3301 | HIST1H2BF | GGAGCGGACTTAGCAGGTTC |
| 3302 | HIST1H2BF | CTCCAAAAAGGCGGTGACCA |
| 3303 | HIST1H2BF | GGCTAAGCACGCCGTGTCAG |
| 3304 | HIST1H2BF | TAGCACCTTGTACACGTACA |
| 3305 | HJURP | GCAGTACAACCAGCCCTTCG |
| 3306 | HJURP | CTTACCCTGTGGCGTCTCGT |
| 3307 | HJURP | GGTCGATGCCACGTCAGACC |
| 3308 | HJURP | TCCCTCGCACCGCACAGTCC |
| 3309 | HJURP | GGACTCCTCCATGAAGCCCG |
| 3310 | HJURP | CCCAAGCAACTGACTCTTCC |
| 3311 | HK1 | CAGAGCTTACCGATTCTCGC |
| 3312 | HK1 | AGATGTTGCCAACATTCGTA |
| 3313 | HK1 | GCAGATCTGCCAGCGAGAAT |
| 3314 | HK1 | TTGGATTAAAATCCCGGGAG |
| 3315 | HK1 | TCAGCAAGTAGATGAAGTTT |
| 3316 | HK1 | TCATCTACTTGCTGAAAGTG |
| 3317 | HK2 | TGACCACATTGCCGAATGCC |
| 3318 | HK2 | TTACCTCGTCTAGTTTAGTC |
| 3319 | HK2 | GTTGAGCTCCGTGAAGAAGT |
| 3320 | HK2 | GCTGACTTACCTTCTGCACT |
| 3321 | HK2 | GATGACCACAACTGTGAGAT |
| 3322 | HK2 | ATCATAACCACAGGTCATCA |
| 3323 | HK3 | CCGGATGCTGCCTACATACG |
| 3324 | HK3 | TCCAGAGCAAGGAGACTTCG |
| 3325 | HK3 | TGATACCCACCAGTGCCATG |
| 3326 | HK3 | GATCCCCCAAGAGGTGATGC |
| 3327 | HK3 | GTCTTCAGGGTTGCGGCAGG |
| 3328 | HK3 | TGGAAGCTCATGGACTCCAT |
| 3329 | HLA-E | CGTTGTCGAAGCGCACGAAC |

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|---|---|---|
| 3330 | HLA-E | ACCGGGAGACACGGAGCGCC |
| 3331 | HLA-E | GGATTATCTCACCCTGAATG |
| 3332 | HLA-E | ACTCCACGCATGTGTCTTCC |
| 3333 | HLA-E | GGATGGGGAGGGCCATACCC |
| 3334 | HLA-E | CCGAGCCCGTCACCCTGAGA |
| 3335 | HMBS | ACATTGAAAGCCTCGTACCC |
| 3336 | HMBS | AAAGATGAGAGTGATTCGCG |
| 3337 | HMBS | GCAGCTTGCTCGCATACAGA |
| 3338 | HMBS | ATCAAGAATCTTGTCCCCTG |
| 3339 | HMBS | TCAGTTGCTATGTCCACCAC |
| 3340 | HMBS | GTTCAAGCTCCTTGGTAAAC |
| 3341 | HMCN1 | TGCTACACAAGTATATCGTC |
| 3342 | HMCN1 | CATGTTAATATTGCTGCGAA |
| 3343 | HMCN1 | TGCATACGCTTCACATTCCA |
| 3344 | HMCN1 | AAGGTCCCCTTTATTGATTA |
| 3345 | HMCN1 | ATAGGAAACATGCTAGATAC |
| 3346 | HMCN1 | CTCCCCCTCCTACACTGACA |
| 3347 | HMGA1 | GGGCATCTCGCAGGAGTCCT |
| 3348 | HMGA1 | TAGAAAACCACCACAACTCC |
| 3349 | HMGA1 | GGGTCACTGCTCCTCCTCCG |
| 3350 | HMGA1 | CTCACCGGAGGCTGCTTGCG |
| 3351 | HMGA1 | CTCGAAGTCCAGCCAGCCCT |
| 3352 | HMGA1 | TGCCAACACCTAAGAGACCT |
| 3353 | HMGB2 | CTGCACGAAGAAGGCGTACG |
| 3354 | HMGB2 | GCGAAATTGACGGAAGAGTC |
| 3355 | HMGB2 | GTGACAAAGCTCGCTATGAC |
| 3356 | HMGB2 | GAAGTCGAAGTTTGAAGATA |
| 3357 | HMGB2 | TATTGCTGCATATCGTGCCA |
| 3358 | HMGB2 | AAGATCAAAAGTGAACACCC |
| 3359 | HMGB3 | GTTCTTTGCAGACGATGTCC |
| 3360 | HMGB3 | AGTCACTTACGGTGGCCTTT |
| 3361 | HMGB3 | TAAGCGGACATCTTGCCCTT |
| 3362 | HMGB3 | AAAATTCCGCAAAATTGACA |
| 3363 | HMGB3 | TTTGCCGCCTTAGTGATGTA |
| 3364 | HMGB3 | AAGATCAAATCCACAAACCC |
| 3365 | HMGCL | AGCCCTCTAGCATGTAGACC |
| 3366 | HMGCL | TCCTGATGCCCCCTGTGCGT |
| 3367 | HMGCL | CTCACCTGGGGAACCCACTT |
| 3368 | HMGCL | GCCTCGAAGCCTTTCAAATT |
| 3369 | HMGCL | GTCCTGACCCCAAATTTGAA |
| 3370 | HMGCL | ACCAAAGCGGGTGAAAATTG |
| 3371 | HMSD | TATGTGCTTAGAACTGCCAA |
| 3372 | HMSD | CCACAACACGTGTAAACTCC |
| 3373 | HMSD | GAAGATGGAGATATTCATCG |
| 3374 | HMSD | CAAGGCTGATGATATGCTCA |
| 3375 | HMSD | CATGAGCATATCATCAGCCT |
| 3376 | HMSD | CTTTGCCCCCATGAAAACCA |
| 3377 | HNF1A | GTACGTCCGCAAGCAGCGAG |
| 3378 | HNF1A | GGCTTCTTCTTTGCGCCGGT |

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|---|---|---|
| 3379 | HNF1A | AGACACGCACCTCCGTGACG |
| 3380 | HNF1A | ACGGTTCCTCCGCCCCTTCT |
| 3381 | HNF1A | GGCGGAGGAACCGTTTCAAG |
| 3382 | HNF1A | TATCGACCACCTCCCGCTGT |
| 3383 | HNF1B | TGTACAGAGCGGCACGCTTC |
| 3384 | HNF1B | ACAAGAAGATGCGCCGCAAC |
| 3385 | HNF1B | GTTGCGGCGCATCTTCTTGT |
| 3386 | HNF1B | AGACTTGCTGTAAAACCGAC |
| 3387 | HNF1B | TGCTTACCTGACAGCTTGTT |
| 3388 | HNF1B | TCGTTGCTTTCTGACGTACC |
| 3389 | HNRNPC | ATACATACACTTTCCAGACT |
| 3390 | HNRNPC | GCTCCTTCTTAATGGCCTGA |
| 3391 | HNRNPC | AGTGAAAGGAGATGACCTTC |
| 3392 | HNRNPC | ACTTCACGAAGGGGCAAAAG |
| 3393 | HNRNPC | GCAGAGCCAAAAGTGAACCG |
| 3394 | HNRNPC | AGGTGTGAAACGATCTGCAG |
| 3395 | HORMAD1 | ACACTTACCTGAGGATCTTC |
| 3396 | HORMAD1 | CCATGGGAGTCCTCTGCAAC |
| 3397 | HORMAD1 | CACAAACCCAGAAGATCCTC |
| 3398 | HORMAD1 | TGGCCACTGCCCAGTTGCAG |
| 3399 | HOXA2 | TGTCGAGTGTGAAAGCGTCG |
| 3400 | HOXA2 | AGTCACCCTCGCCACGGCGC |
| 3401 | HOXA2 | GAATCCCTGGAAATCGCCGA |
| 3402 | HOXA2 | GTCGAGGGAACCTGGCAAAC |
| 3403 | HOXA2 | TGCAGCCGCCCGAGTACCCC |
| 3404 | HOXA2 | TACGAATTTGAGCGAGAGAT |
| 3405 | HOXB9 | GCTGCCGCGAGCTCGCGTAC |
| 3406 | HOXB9 | GTACGCGAGCTCGCGGCAGC |
| 3407 | HOXB9 | GTCTGGCCACTTCGTGCCTA |
| 3408 | HOXB9 | CAGCCAACCCCTCCGCCAAC |
| 3409 | HOXB9 | GGGCACGCCCGAGTACAGTT |
| 3410 | HOXB9 | CCGCTGAGCCCGCACGCGTC |
| 3411 | HOXD8 | CCTAGCCCTCACCGAGAGAC |
| 3412 | HOXD8 | CAAATTTCCCGTTTCCCGGC |
| 3413 | HOXD8 | CAACCTTGTGGTCTCATCCA |
| 3414 | HOXD8 | CTCCTTCTCAAATGTTTCCG |
| 3415 | HOXD8 | TCGCTTCCAAACTCTAGAGT |
| 3416 | HOXD8 | GCAGCTCCTGGTAGACGAAG |
| 3417 | HP1BP3 | GAATTCACAGTTCGACGAAT |
| 3418 | HP1BP3 | GCCTAAGAAAGCACCTCCTA |
| 3419 | HP1BP3 | GGTCTTCTTGGCAGGCGTTT |
| 3420 | HP1BP3 | GTCGAACTGTGAATTCTACC |
| 3421 | HP1BP3 | AAGAGCCGCCACCTAAGAGA |
| 3422 | HP1BP3 | TGTCCACACCTTCTCTTAGG |
| 3423 | HPRT1 | GTTATGGCGACCCGCAGCCC |
| 3424 | HPRT1 | CTGTCCATAATTAGTCCATG |
| 3425 | HPRT1 | TCTTGCTCGAGATGTGATGA |
| 3426 | HPRT1 | AATAAATCAAGGTCATAACC |
| 3427 | HPRT1 | TAAATTCTTTGCTGACCTGC |

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|---|---|---|
| 3428 | HPRT1 | GAGCTGCTCACCACGACGCC |
| 3429 | HRAS | GGACTCGGATGACGTGCCCA |
| 3430 | HRAS | GGAGGATGCCTTCTACACGT |
| 3431 | HRAS | TGTAGGGGATGCCGTAGCTT |
| 3432 | HRAS | CTCACGCACCAACGTGTAGA |
| 3433 | HRAS | CATCCTGGATACCGCCGGCC |
| 3434 | HRAS | TTGACACAGGGCAGCCGCTC |
| 3435 | HS6ST3 | TTCTAACGTGGAGATCAACG |
| 3436 | HS6ST3 | CACCACTTTCGGCCGGCACC |
| 3437 | HS6ST3 | AGTTTAGATCCTCAATGCGT |
| 3438 | HS6ST3 | GCGGGGCTGCTCCCCGAAGT |
| 3439 | HS6ST3 | TCACACAGTTCAACATCACG |
| 3440 | HS6ST3 | TCGCTCAGGTAACGTGACAC |
| 3441 | HSD11B1 | CAGTCAGGACCACGTAACTG |
| 3442 | HSD11B1 | CATTGTTGTCGTCTCCTCTC |
| 3443 | HSD11B1 | GCAGGTGGTATCCCACTGCC |
| 3444 | HSD11B1 | GCCTCAGCACACTACATTGC |
| 3445 | HSD11B1 | ACCTCGCTGTCACCACCACA |
| 3446 | HSD11B1 | CTCTCTTCCGATCCCTTTGC |
| 3447 | HSD11B2 | CCGCGTGCTAGAGTTCACCA |
| 3448 | HSD11B2 | CCTGGCCGGGGTAATAGCGG |
| 3449 | HSD11B2 | CCTTGGTGAACTCTAGCACG |
| 3450 | HSD11B2 | TGGCCAGGCGTAGCGAGTGC |
| 3451 | HSD11B2 | GGACATGCCATATCCGTGCT |
| 3452 | HSD11B2 | TGTGTCCATGAGTAGCGCCA |
| 3453 | HSD17B4 | ATCCGGTGTAGTGATTATTA |
| 3454 | HSD17B4 | GCTTTGTCACGAGAGTTGTG |
| 3455 | HSD17B4 | ATCCATAATAATCACTACAC |
| 3456 | HSD17B4 | AACTCTCGTGACAAAGCCAA |
| 3457 | HSD17B4 | AACTCACCTGCTCTGGGAAG |
| 3458 | HSD17B4 | TATAAACCACTTCCCAGAGC |
| 3459 | HSPA12B | AGTGCGCTTGCGAGCCTCGA |
| 3460 | HSPA12B | CCAGGTCATGGTAGTAATCG |
| 3461 | HSPA12B | ACGTGGAGACCGCTCTGCGC |
| 3462 | HSPA12B | CCGCGATTACTACCATGACC |
| 3463 | HSPA12B | CACTGGGGACCGCTCCGGGC |
| 3464 | HSPA12B | GGGCAATGCCGCAGCTTTCC |
| 3465 | HUS1 | CCAGCTCCACGGAGACCGTG |
| 3466 | HUS1 | CATTAGCCAGCTTGTCACAA |
| 3467 | HUS1 | GTTATTGAAGCAAACCTAGA |
| 3468 | HUS1 | TAAGCTTATCAGGGCTGATG |
| 3469 | HUS1 | GATTTATTTAGAGCTAACAT |
| 3470 | HUS1 | ACAGGGTGCTAGGACAGCGC |
| 3471 | HYDIN | GATCATCGAACTCTTAGATA |
| 3472 | HYDIN | TCTAAGAGTTCGATGATCTG |
| 3473 | HYDIN | GCTGGAATAATGCCTGATCC |
| 3474 | HYDIN | CGGGCGGCGCATGGAGAGTG |
| 3475 | HYDIN | TCATTGTTCCTCAAAATCAG |
| 3476 | HYDIN | TACACCCTCAGAGTTCCTGA |

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|---|---|---|
| 3477 | IDI1 | TAACCACCTCGACAAGCAAC |
| 3478 | IDI1 | AAGCAATCCAGCCGAGCTTG |
| 3479 | IDI1 | GTTGAACCTGTTGCTTGTCG |
| 3480 | IDI1 | GAGCTGGTTACCTCTTCCAA |
| 3481 | IDI1 | CGTTATCTTAATTTCACCAC |
| 3482 | IDI1 | CACTACAAAGCTCAGTCTGA |
| 3483 | IDUA | AGGTCGTCGCGCAGCAGATC |
| 3484 | IDUA | GGTCTACGTCACGCGCTACC |
| 3485 | IDUA | CACCCCCATTTACAACGACG |
| 3486 | IDUA | CAGGCGCCGCCACTCGCCGT |
| 3487 | IDUA | GTAGCTCAGGCCCCGTCCAG |
| 3488 | IDUA | GAAGGTCCAGGTACCCGTCC |
| 3489 | IFFO1 | GGCGTGCGAGAACGACCAGA |
| 3490 | IFFO1 | TTCTCGCACGCCCGCCGGCT |
| 3491 | IFFO1 | AGACCGTGTAAATGAGCTCC |
| 3492 | IFFO1 | CTGAGCTGGTGGTCTTCAAG |
| 3493 | IFFO1 | CCTCCTGGAGCTCATTTACA |
| 3494 | IFFO1 | CCAACTGCAGGAAGCCCAGG |
| 3495 | IFI30 | ACTTCTTCAGGGGCCCCCGC |
| 3496 | IFI30 | ACACACCTGTGCGTTTCCGT |
| 3497 | IFI30 | TCATGCACGCCAACGCCCAG |
| 3498 | IFI30 | CACCACACGAGTATGTGCCC |
| 3499 | IFI30 | GTCAAGTTCATCCAACACGC |
| 3500 | IFI30 | CAAACCCCAGGCCTGCGTGT |
| 3501 | IFNG | CTGTCGCCAGCAGCTAAAAC |
| 3502 | IFNG | CGAAAAGCTGACTAATTATT |
| 3503 | IFNG | GTTCATGTATTGCTTTGCGT |
| 3504 | IFNG | GACATTCATGTCTTCCTTGA |
| 3505 | IFNG | TGCAGGTCATTCAGATGTAG |
| 3506 | IFNG | TTCTCTTGGCTGTTACTGCC |
| 3507 | IFNLR1 | CCACTTCGCGCCACCGTCTA |
| 3508 | IFNLR1 | ACAAGTTCAAGGGACGCGTG |
| 3509 | IFNLR1 | ACTTCAGCGTGTACCTGACA |
| 3510 | IFNLR1 | CACTCAGGATCTCCTCCGTC |
| 3511 | IFNLR1 | ACCTCATACTTCAGATCCAG |
| 3512 | IFNLR1 | ACTGAGGCAGTGGTGTTCGC |
| 3513 | IGF1R | TCAGTACGCCGTTTACGTCA |
| 3514 | IGF1R | GTGGAGAACGACCATATCCG |
| 3515 | IGF1R | CCACGACGGCGAGTGCATGC |
| 3516 | IGF1R | TGCCGCCACTACTACTATGC |
| 3517 | IGF1R | TGTTTCCGAAATTTACCGCA |
| 3518 | IGF1R | GGCTCTCTCCCCGTTGTTCC |
| 3519 | IGFL2 | CTGAGCGAGACCCGCCAATG |
| 3520 | IGFL2 | TCACAACAAAATCGTTTGTG |
| 3521 | IGFL2 | CGACTACCCCAGGAGTGTGC |
| 3522 | IGFL2 | TTACTTACCCAGCACACTCC |
| 3523 | IGFL2 | AGACAGACTGACACATAAGC |
| 3524 | IGFL2 | TACTCACCGATGACTTCCCT |
| 3525 | IKZF5 | GTAACTTGTCCCATCATCGA |

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|---|---|---|
| 3526 | IKZF5 | ATCTGCTTATGAGCGTCATC |
| 3527 | IKZF5 | CAGAAATCATGTTCACGTGA |
| 3528 | IKZF5 | AAATCTTTCACGAAGTCCAA |
| 3529 | IKZF5 | AACTCAGGAATGTTAGTAGA |
| 3530 | IKZF5 | TTGATGGGAAGCTTAAGTGT |
| 3531 | IL17RD | GTATTACCCGAAATCCTTTC |
| 3532 | IL17RD | GCAATCACATGCTTCCCCAC |
| 3533 | IL17RD | GTATGCTTGCCATGACCAAG |
| 3534 | IL17RD | GTGCCAACAACTGATTCTAA |
| 3535 | IL17RD | GTACAGCCCACTGTTTCTGC |
| 3536 | IL17RD | TTACTTACTGTCATATTTGA |
| 3537 | IL27RA | CAGTGAAGCCAAACGCCCCC |
| 3538 | IL27RA | CCTCACCAGAAGGCGGTGTC |
| 3539 | IL27RA | GTTCCACTACCGAAGATGTC |
| 3540 | IL27RA | CCTGATACCCACACATCTTT |
| 3541 | IL27RA | TCCTTCCAGACACCGCCTTC |
| 3542 | IL27RA | CTCACCTTCCATAGAAGCAA |
| 3543 | IL6 | TCTCATTCTGCGCAGCTTTA |
| 3544 | IL6 | GTACCTCATTGAATCCAGAT |
| 3545 | IL6 | CACTACTCTCAAATCTGTTC |
| 3546 | IL6 | TTTGTCAATTCGTTCTGAAG |
| 3547 | IL6 | ACATTTGCCGAAGAGCCCTC |
| 3548 | IL6 | GAACAGATTTGAGAGTAGTG |
| 3549 | IL6ST | AGATGCCTCAACTTGGAGCC |
| 3550 | IL6ST | TTTGAGTTGCATTGTGAACG |
| 3551 | IL6ST | ATTCGCTGTATGAAGGAAGA |
| 3552 | IL6ST | ATGATAGTATATTGCTCCTT |
| 3553 | IL6ST | GTGGATGCTGTGTCTTCAGG |
| 3554 | IL6ST | ATTATAACACTCTTAATACT |
| 3555 | IMPDH2 | AACATCCCGCACGCGATCCT |
| 3556 | IMPDH2 | AATCACTCTTAAGACCCCAC |
| 3557 | IMPDH2 | GACTTGGTGGTAGCCCCTGC |
| 3558 | IMPDH2 | GATACCGCAGAAACCATGCC |
| 3559 | IMPDH2 | GGGGCTCACCGCCATTGCTA |
| 3560 | IMPDH2 | CCACGTAGATAATGACAAAG |
| 3561 | INHBE | CTGCGACCCCCTTATGTTGC |
| 3562 | INHBE | GAGTTAAGGTATGCCAGCCC |
| 3563 | INHBE | ACCCCAAGCAGAACGAGCTC |
| 3564 | INHBE | GTGGGCACTGGTGCGAGCAC |
| 3565 | INHBE | GCACAGTTACTGGACAACCG |
| 3566 | INHBE | GTTGTGTCCCTACTGCCCGA |
| 3567 | INO80 | GGATCCCTTAATACAAGTTA |
| 3568 | INO80 | AATCCATTATTGCCCCAGTC |
| 3569 | INO80 | GCTAAGTGATGAATCCAGCG |
| 3570 | INO80 | ACTCTGAGAATCAGCCTCGC |
| 3571 | INO80 | TACAGAATCAAAATGTGATA |
| 3572 | INO80 | AGCTGAAGAAAAGCAGAAAG |
| 3573 | INO80B | GCGCTACTGCAGCGGAGCAC |
| 3574 | INO80B | AAGGTTGACTCCGCGCCTTC |

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|---|---|---|
| 3575 | INO80B | GCGGCTGCTTACTGCTCGAC |
| 3576 | INO80B | CCCTTGAGCAGTACCGTGCC |
| 3577 | INO80B | TTGAGCCTGGCGGGTGCCCA |
| 3578 | INO80B | GCCCGGCGTCTTCTTCCTGA |
| 3579 | INO80C | TTAGGATCGTTCAGTTGCCA |
| 3580 | INO80C | TGCCAGCTACTGCGCCACCG |
| 3581 | INO80C | TCGATGCTTACCACAAAGTT |
| 3582 | INO80C | TGAGTTTAGCACAGGACCTG |
| 3583 | INO80C | CGCCTTCCACCATGATTGTG |
| 3584 | INO80C | AATGGACTCACAGTTCCACG |
| 3585 | INO80D | GAGCTGCATGCAGTCGAACC |
| 3586 | INO80D | GACGAGATTCTGCCCGCTCC |
| 3587 | INO80D | GAACACCAGCCTACCAATGC |
| 3588 | INO80D | CTTGAAGATGCCCAACGGAC |
| 3589 | INO80D | CCCGGATGGACCATGCAACC |
| 3590 | INO80D | ACGCATGTCTTTGATATCTG |
| 3591 | INO80E | ACTTCTGCAGTACGAGAACG |
| 3592 | INO80E | ACAGGAGCACGAGTGCTTCC |
| 3593 | INO80E | ACGTGCCTCACCTCTTGTCC |
| 3594 | INO80E | CGTTCTCGTACTGCAGAAGT |
| 3595 | INO80E | CAACTCACCGAGCTCAGGTA |
| 3596 | INO80E | GCTGTTATCTGATGATGCAG |
| 3597 | IPO5 | TATGCAGCCTGTAATGCCGT |
| 3598 | IPO5 | CAGGCTGCATACCTTACTCT |
| 3599 | IPO5 | CAAATGCCTGAGGATCAAGT |
| 3600 | IPO5 | ACCATCATTGCTAACATCTG |
| 3601 | IPO5 | TCCTCAGATGTTAGCAATGA |
| 3602 | IPO5 | AAGCAACAGAAAACACAATA |
| 3603 | IQGAP3 | CCTTCGGAATGGAGTGCTGC |
| 3604 | IQGAP3 | TTGCCTATCAGTACCTGTGC |
| 3605 | IQGAP3 | CTTGAAGAAGATCTACGATG |
| 3606 | IQGAP3 | AGATGAACGCCTCACAGCTG |
| 3607 | IQGAP3 | CACTCACAGGCTGCCCAGCC |
| 3608 | IQGAP3 | GAACATGGAGAGGAGAGCAG |
| 3609 | IQUB | GTACTGCAGATAAGATACTC |
| 3610 | IQUB | GCTCCTCAACATGTATTGCA |
| 3611 | IQUB | AATCCATCTATTCTTCTGAC |
| 3612 | IQUB | ATTACAATTTCCTGGCCCAC |
| 3613 | IQUB | AATGAGACTCTAGTACAACA |
| 3614 | IQUB | GAGCCATGCAATACATGTTG |
| 3615 | IRF6 | CTGGGTTAATGATCGAGCCC |
| 3616 | IRF6 | CTGAGGGTTGCTCACGGTCA |
| 3617 | IRF6 | CCCACTCACCATTGATGTTC |
| 3618 | IRF6 | CATGACCGTGAGCAACCCTC |
| 3619 | IRF6 | AGAGAGCTGATCCACAGTTC |
| 3620 | IRF6 | GAGCTATAGAAGGGCTGTAT |
| 3621 | ISX | CCTCTTTAGGATCGCCTCAA |
| 3622 | ISX | TGTGTTTCCCATGGGTGCGC |
| 3623 | ISX | TGTACCTGCACCCGAGCTTC |

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|---|---|---|
| 3624 | ISX | TCCCACGAGCTGTTGTCCAT |
| 3625 | ISX | CGATCCTAAAGAGGCCTGCC |
| 3626 | ISX | CGTTCACATCCGCAGCCAGC |
| 3627 | ITGA1 | GGCCAACCCAAAAACAGAAC |
| 3628 | ITGA1 | GGTAGATCCAACTTTACACA |
| 3629 | ITGA1 | CAGCGACCCCTGGGCGGGCG |
| 3630 | ITGA1 | GGGTCGCTGTCGCCTGCTGC |
| 3631 | ITGA1 | TATCCAAACATGTCTTCCAC |
| 3632 | ITGA1 | AAAAATTCAATGACTTTCAG |
| 3633 | ITGAE | ACCGGGGAGTGACCGTTGTC |
| 3634 | ITGAE | TCTGGTGTTGATCGTGATTC |
| 3635 | ITGAE | ACGCTGCCTTTAATGATGAT |
| 3636 | ITGAE | CCATCGATGTTCCCTTGTCC |
| 3637 | ITGAE | CCTGGACAAGGGAACATCGA |
| 3638 | ITGAE | GGCCACATCCACATTGAAAG |
| 3639 | ITGB3BP | GCAAAATTTAAGTAGTATAC |
| 3640 | ITGB3BP | AGAGAGCTTGAAAATCTCAT |
| 3641 | ITGB3BP | TGTTAAAAGATCACTGAAGT |
| 3642 | ITGB3BP | AAAATTCTTACTTAGTTCTT |
| 3643 | ITGB3BP | GAAATTGTCAGAAGAAATCA |
| 3644 | ITIH1 | CTGTCGATGGCGTGTTCATC |
| 3645 | ITIH1 | AACATAGTGGGCGAAGCGAG |
| 3646 | ITIH1 | GCCATATACCTCGCTGCTCT |
| 3647 | ITIH1 | TTAGAGCATGGACGGTGCCA |
| 3648 | ITIH1 | TTTGCAGAAGCGACAGGCTG |
| 3649 | ITIH1 | ACCTGCCTGTAGCCGAGCCC |
| 3650 | ITIH6 | AAGCTATTCTATGCGCTCCA |
| 3651 | ITIH6 | CCGCTGAAGCAGTTCCTCAT |
| 3652 | ITIH6 | CAAGACCAGTCGTCCATCTC |
| 3653 | ITIH6 | TGCGCAGACGGCCGGTCCTC |
| 3654 | ITIH6 | GGTCTCTCCCCTCTCGATCC |
| 3655 | ITIH6 | GGCATAGCGAGACACCACCG |
| 3656 | ITPA | CTGATAAGTGCCGGAGTACC |
| 3657 | ITPA | AAATCTCATCCGGCTCCCCC |
| 3658 | ITPA | GAACAGGTCGTTCAGATTCT |
| 3659 | ITPA | AGTCACTCACATGTAGGGGC |
| 3660 | ITPA | ACAAGTGTCCTCAACCAGCA |
| 3661 | ITPA | CTCTTGCAGAAAGTGGTTTC |
| 3662 | IVD | CTATTAGCTTCGTCAGACCA |
| 3663 | IVD | CATTGCTGCGATCGATCTCC |
| 3664 | IVD | CATTCCCATTGCGTACAAGC |
| 3665 | IVD | CTGTGATGCCCAATACGCCC |
| 3666 | IVD | GAGGAGATATCCCGAGCTTC |
| 3667 | IVD | GCCATGAGTGAGCCCAATGC |
| 3668 | JAM3 | CGTTGCTCGAAATGACCGCA |
| 3669 | JAM3 | ATTCGCAGACAAGTGACCCC |
| 3670 | JAM3 | CAACGACCTCACAGCGATAA |
| 3671 | JAM3 | GCCTTCGGCACTCTACAGAC |
| 3672 | JAM3 | ACCCCCGGCCTCACTACAGC |

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|---|---|---|
| 3673 | JAM3 | TGAGATTTACAGCCCCTATC |
| 3674 | JARID2 | CTTCATGCCAGTCGACCCCC |
| 3675 | JARID2 | TTCAGCTAACCACCCCGCAG |
| 3676 | JARID2 | TCCTGAGCCGACCGATGCAG |
| 3677 | JARID2 | AGAACTAACATCGTTGCTAG |
| 3678 | JARID2 | TTCCTTTCCTGGGGGTCGAC |
| 3679 | JARID2 | CCTTAGACTGGTCATTACCA |
| 3680 | JUN | TCGTTCCTCCCGTCCGAGAG |
| 3681 | JUN | GTCATGAACCACGTTAACAG |
| 3682 | JUN | CACGCTGCCCAGCGTCACGT |
| 3683 | JUN | TCTCCGCCTTGATCCGCTCC |
| 3684 | JUN | CAAGCTGGCGTCGCCCGAGC |
| 3685 | JUN | GATTATCAGGCGCTCCAGCT |
| 3686 | JUP | CATGGCCTCCCGCACCCGTT |
| 3687 | JUP | AGTTACGCATGATCTGCACG |
| 3688 | JUP | ACGCCTCCTTCTTCGACAGC |
| 3689 | JUP | TAGCACCTTGAGCACACGAC |
| 3690 | JUP | GCTGCTCGCCATCTTCAAGT |
| 3691 | JUP | GTAGTTGATGAGATGCACAA |
| 3692 | KAT2A | CCTGAGACCTCTGCCGAAAC |
| 3693 | KAT2A | CCTACAAGGTCAATTACACC |
| 3694 | KAT2A | TCTCAAATGGAGGGCTGCCC |
| 3695 | KAT2A | CCGCAGTTGTGAGCACCCCT |
| 3696 | KAT2A | TTTCCAGCCATTACACTTAC |
| 3697 | KAT2A | TATCTCACCTGCTCAATATT |
| 3698 | KAT2B | CCACATCCAATACTATTCCC |
| 3699 | KAT2B | GGCATGGCTACAACTCCGAC |
| 3700 | KAT2B | ACCTGTGGTTGAAGGCTCTT |
| 3701 | KAT2B | GAGGAGTCTTGTAAATGTAA |
| 3702 | KAT2B | TCCAAAGAGCCTTCAACCAC |
| 3703 | KAT2B | AGCTGCTCATGTTTCCCACC |
| 3704 | KAT6A | TGATAGCCAATCGTAACTGC |
| 3705 | KAT6A | TTCACTCGAACCGTTAGTTC |
| 3706 | KAT6A | TTCGAGTGAAGGCCTTACGG |
| 3707 | KAT6A | TTAGTGTTGAGCCGATAAAG |
| 3708 | KAT6A | CATACCACTGTTGCCACAGT |
| 3709 | KAT6A | CTCATCTCCTGTGCCGACTG |
| 3710 | KAT6B | TGAAAGACGGACCGCAGTAC |
| 3711 | KAT6B | GTTGTCTGGGTCCTTATAGG |
| 3712 | KAT6B | TTCGATGCACTGCCACCTTA |
| 3713 | KAT6B | TGCCACAATCTGCACAAGAG |
| 3714 | KAT6B | TCCAATATGTAGCTTCTGTT |
| 3715 | KAT6B | TGCAGTGCCTGTAGAGTCCA |
| 3716 | KBTBD6 | CGTCCAGACTATCCAAGCGC |
| 3717 | KBTBD6 | GATAGTCTCGAATTACCATT |
| 3718 | KBTBD6 | CGCGTACAGGCGCTCCACGT |
| 3719 | KBTBD6 | ATGCCGCGGCCAGCACATTG |
| 3720 | KBTBD6 | TGGTACCTATATTAATCCAT |
| 3721 | KBTBD6 | CCTGGGATCGCAGCTTGCGA |

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|---|---|---|
| 3722 | KCNIP3 | CCCGTTCCCGTCCGCATCAA |
| 3723 | KCNIP3 | GAACGGGGCCATCCACTTTG |
| 3724 | KCNIP3 | CGTCGGACGGCAGCCTCCTG |
| 3725 | KCNIP3 | CTCTGGCTGGTGGCGCACCG |
| 3726 | KCNIP3 | ATACCCTCCTTCTTGCTAAG |
| 3727 | KCNIP3 | CACGGTGCGCCACCAGCCAG |
| 3728 | KCNJ2 | TATCTCCGACTCTCGCCGTA |
| 3729 | KCNJ2 | GGGCAAAGCTTGTGTGTCCG |
| 3730 | KCNJ2 | GTGTCCGTACTAGTGCTTTC |
| 3731 | KCNJ2 | AGACATCTTCACCACGTGTG |
| 3732 | KCNJ2 | CAACGCAGACTTTGAAATCG |
| 3733 | KCNJ2 | GCCGTGATTGCCATGAGAGA |
| 3734 | KCNMB3 | CCCCGTGCAAATCACACTTC |
| 3735 | KCNMB3 | AGCCTCTTGTGCACATCTAG |
| 3736 | KCNMB3 | AGAGGACCGAGCCGTGATGC |
| 3737 | KCNMB3 | CTTACCTCCCCTGGCGCCTC |
| 3738 | KCNMB3 | GGGGAAGTACCCGTGTCTTC |
| 3739 | KCNMB3 | TTTGTGAACCTCAGCCATCC |
| 3740 | KCNS1 | CGGCAAGCGCGTTCTCGCCT |
| 3741 | KCNS1 | ACAGCTCGTCGAGCACGTGC |
| 3742 | KCNS1 | GACATCCCGAGAAACCTCTC |
| 3743 | KCNS1 | CACAGTGAGCATGACCACCG |
| 3744 | KCNS1 | GTGGTGCTGCCAACACCCCT |
| 3745 | KCNS1 | CACTTACCTCCTAGGGGTGT |
| 3746 | KCNT2 | CTACTAGAAAACCCTTCACA |
| 3747 | KCNT2 | TGAACAGAAGTCTACCTTTG |
| 3748 | KCNT2 | TACCATTCATTTCCTTGTGA |
| 3749 | KCNT2 | ATAACCTGTAAGCCCCACAA |
| 3750 | KCNT2 | CTGTTTGAAACAATATTACT |
| 3751 | KCNT2 | TTTATAGGTCTCATATCTTT |
| 3752 | KDM3B | TCTTGTATGGGCGCCCCGTG |
| 3753 | KDM3B | GCCTTGACTGTTACCGGCTC |
| 3754 | KDM3B | TCCTGAGCCGGTAACAGTCA |
| 3755 | KDM3B | CAAGTGTCGTGAATGCCGCC |
| 3756 | KDM3B | GGAAGTTATCGTGCTTCTGC |
| 3757 | KDM3B | GGATGGGTCATGCATCAATG |
| 3758 | KDM4A | ACTCCGCACAGTTAAAACCA |
| 3759 | KDM4A | GCGGAACTCTCGAACAGTCA |
| 3760 | KDM4A | TTCCACTCACTTATCGCTAT |
| 3761 | KDM4A | GTACGGCAAGCAAGCTGTGC |
| 3762 | KDM4A | CATCAGCTCACCTTGTCAAA |
| 3763 | KDM4A | TCACAGCTTTGAGCACTTCC |
| 3764 | KDM4B | CCCCGCGTACTTCTCGCTGT |
| 3765 | KDM4B | GTATGATGACATCGACGACG |
| 3766 | KDM4B | TCACCAGGTACTGTACCCCG |
| 3767 | KDM4B | CTGATGTCAGCCCCGTAGAT |
| 3768 | KDM4B | CATGACGTTTCGCCCAACCA |
| 3769 | KDM4B | GGCTCCCTGCGACTCTATGT |
| 3770 | KDM4C | CCTTTGCAAGACCCGCACGA |

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|---|---|---|
| 3771 | KDM4C | AGTAGGCTTCGTGTGATCAA |
| 3772 | KDM4C | GTCTAAAGGAGCCCATCGTG |
| 3773 | KDM4C | AAGTAAGAAAAGCATCCCGA |
| 3774 | KDM4C | GAAGAAATGCATCACACCCT |
| 3775 | KDM4C | CCATATTTCTTCAATACTGA |
| 3776 | KDM4D | CCACGCCGATCTGCAGTTAG |
| 3777 | KDM4D | CGACCACGTCTGCCATTTGA |
| 3778 | KDM4D | TGCATGTTGTGCCCGCCAAG |
| 3779 | KDM4D | AACCTGAACGCTATGACCTG |
| 3780 | KDM4D | GCTCCAAATCTTCGAAATTC |
| 3781 | KDM4D | CAGATTATCCACCCGTCAAA |
| 3782 | KDM4E | GTTGCACAATGCGCACAAAG |
| 3783 | KDM4E | TGGGGTTCTGGTCGTGGTCG |
| 3784 | KDM4E | GGGTATGATATGCAGAGCTT |
| 3785 | KDM4E | CAGGCAAGACTTGGCCATTG |
| 3786 | KDM4E | GGCCAGCTTGATGTGCGCCT |
| 3787 | KDM4E | CTGTTCAGCCTGCATCCAAG |
| 3788 | KDM5A | CATGAACCCCAACGTGCTAA |
| 3789 | KDM5A | CTGGGATTCAAATAACTCGG |
| 3790 | KDM5A | TCTCTGGTATGAAAGTGCCG |
| 3791 | KDM5A | ACGACTGACCCAAGTGTCAT |
| 3792 | KDM5A | TTTGAATAACATGCCTGTCC |
| 3793 | KDM5A | GACCTCCCTTCTCTGCTATA |
| 3794 | KDM5B | GTCCGCGAACTCTTCCCAGC |
| 3795 | KDM5B | TCGAAGACCGGGCACTCGGG |
| 3796 | KDM5B | GGACTTATTTCAGCTTAATA |
| 3797 | KDM5B | ACTCCCAGTACTTTGCAATC |
| 3798 | KDM5B | CCTCCAATTCATTCAGTCTC |
| 3799 | KDM5B | TTATCAACATCACATGCAAA |
| 3800 | KDM5C | CTTACCGCCATGACACACTT |
| 3801 | KDM5C | GATAAACAATGCGTTCGTAG |
| 3802 | KDM5C | GGGCTACCCGAGCCCACCGA |
| 3803 | KDM5C | CATCCCCTCGAGAACACATC |
| 3804 | KDM5C | AGCTCTGCAGAGTGTATTCC |
| 3805 | KDM5C | GAATACACTCTGCAGAGCTT |
| 3806 | KDM5D | GATTTACTCCTCGCGTCCAA |
| 3807 | KDM5D | AAAGACTTACCGCGGGTGGG |
| 3808 | KDM5D | TAAGGCCCGACATGGAACCG |
| 3809 | KDM5D | TATCCTTATCCTTAGCCATA |
| 3810 | KDM5D | AGGTCCCAAAATGATGGGCT |
| 3811 | KDM5D | CCTCCAGTTCATTTAGCCTT |
| 3812 | KDM6A | ACTGTAAACTGTAGTACCTC |
| 3813 | KDM6A | CAGCATTATCTGCATACCAG |
| 3814 | KDM6A | AGACTATGAGTCTAGTTTAA |
| 3815 | KDM6A | TTATTGGAAGATTATCCAAA |
| 3816 | KDM6A | TTGGATAATCTTCCAATAAG |
| 3817 | KDM6A | AAGTCGTAAATGAATTTCCT |
| 3818 | KDM6B | TACCACAGCGCCCTTCGATA |
| 3819 | KDM6B | ATCCCCCTCCTCGTAGCGCA |

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|---|---|---|
| 3820 | KDM6B | CAAAGGCTTCCCGTGCAGCG |
| 3821 | KDM6B | CGAGTCAGAGCACGATAGTG |
| 3822 | KDM6B | ACTCACCCTGGAGCATAATA |
| 3823 | KDM6B | CCAGAACTACTGCCATGTGA |
| 3824 | KDR | TTCCCGGTAGAAGCACTTGT |
| 3825 | KDR | GAGGTGACTGAGTGCAGCGA |
| 3826 | KDR | TGCTGCTGGCCGTCGCCCTG |
| 3827 | KDR | GGAGACCCGGGCCGCCTCTG |
| 3828 | KDR | GTGTTTCTCTTGATCTGCCC |
| 3829 | KDR | CAACTCTTCAAATTACTTGC |
| 3830 | KDSR | AACTCTGGTTGCACGAAATG |
| 3831 | KDSR | AATGCACTTCCCGATGCCAC |
| 3832 | KDSR | GACATGCTGGTAAATTGTGC |
| 3833 | KDSR | CAATTTACCAGCATGTCCAC |
| 3834 | KDSR | GCACTCTATTAATGACAAAC |
| 3835 | KDSR | CTTTCAGGATAAGCTGCTGC |
| 3836 | KEAP1 | AGCCGCCCGCGGTGTAGATC |
| 3837 | KEAP1 | AGCGTGCCCCGTAACCGCAT |
| 3838 | KEAP1 | GCAATGAACACCATCCGAAG |
| 3839 | KEAP1 | AAGTGCCACTCATCCCGCTC |
| 3840 | KEAP1 | TCGTAGCCCCCATGAAGCAC |
| 3841 | KEAP1 | CATTCGGGTCACCTCGCTCC |
| 3842 | KHDC3L | TCGCTGGGTCCCCGACTTGT |
| 3843 | KHDC3L | TGCATCAGTTGCACGAGCGT |
| 3844 | KHDC3L | AAGATCTCAGCCTCGCCGTT |
| 3845 | KHDC3L | AGTGACCCAGCGGTTTCGCG |
| 3846 | KHDC3L | CTTGATTCACGTGAATCGAT |
| 3847 | KHDC3L | TGAGTTCCTGAAGAATCCGA |
| 3848 | KIAA0825 | ATGGGAATGAAACGCTGCTG |
| 3849 | KIAA0825 | AATGAAGAGACGTCCTAGAG |
| 3850 | KIAA0825 | GTTGTTTGCAGCTGCACACC |
| 3851 | KIAA0825 | CAACAACTGACTGCTTTGAA |
| 3852 | KIAA0825 | TGCTCAAACTCCAAGTCTCC |
| 3853 | KIAA0825 | AGATTGAACAAAATGCTGCA |
| 3854 | KIAA1024 | CAAGCTGCGACAGGTCGAAC |
| 3855 | KIAA1024 | TTTCATCACGGACACCCGAC |
| 3856 | KIAA1024 | TGCACGGAATGCGGGCGACA |
| 3857 | KIAA1024 | AGCCGAATTCAGACGAGCCA |
| 3858 | KIAA1024 | CCAACCTTCTTGGACCATTG |
| 3859 | KIAA1024 | TTTAGTAATGAATCGTATCC |
| 3860 | KIAA1191 | AGGTGCTGATACTTGCGCTC |
| 3861 | KIAA1191 | AGAGCTTACGTGGAGTGCTT |
| 3862 | KIAA1191 | CGCACTCTTCACCTAAGCAG |
| 3863 | KIAA1191 | CAAGTATCAGCACCTCGCCA |
| 3864 | KIAA1191 | GAAGAGTGCGGAGTGGTGCT |
| 3865 | KIAA1191 | TCGAAGGTACTTGGTCTCCT |
| 3866 | KIAA1614 | AATCGCTCGTGTGCCCGTTC |
| 3867 | KIAA1614 | AGCCGTCCACGAGGGTAGGG |
| 3868 | KIAA1614 | TAATGGTGGGCACGATGTCA |

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|---|---|---|
| 3869 | KIAA1614 | AGTTACTCCCGGACGGCCTG |
| 3870 | KIAA1614 | CTGTTGCAGTACTCACGTCC |
| 3871 | KIAA1614 | CTGGATCCTAGAGCGACCAG |
| 3872 | KIF18B | ACCTGACGTTTGTCTTTGAC |
| 3873 | KIF18B | CATCATGTACCTGACCACCG |
| 3874 | KIF18B | GGGGCCCCTTGCCATCCGCG |
| 3875 | KIF18B | TGGCGAGGCGGCCACCCAAC |
| 3876 | KIF18B | TGGTCAGGTACATGATGCCG |
| 3877 | KIF18B | TTGCACCACCACCCCCTTGT |
| 3878 | KIF1B | TCAGCTTCGACTATTCCTAC |
| 3879 | KIF1B | GCTGGTCTCTCGAGAATTGA |
| 3880 | KIF1B | AATGCTCTTACACGCCTTTG |
| 3881 | KIF1B | TAGTCGAAGCTGAAGGACTT |
| 3882 | KIF1B | CAATTCTCGAGAGACCAGCA |
| 3883 | KIF1B | AACCGTGTGTACAATGACAT |
| 3884 | KIF5A | GACAAATCTGTCCGTGCACG |
| 3885 | KIF5A | TGAACGCTTTGTGTCCAGCC |
| 3886 | KIF5A | GAACCGGGTGCCATTTGTCA |
| 3887 | KIF5A | ATTCTGGATGTGATTGATGA |
| 3888 | KIF5A | AAAATTCGTGACCTTCTGGA |
| 3889 | KIF5A | TTCTTACTTTGAAATTTACC |
| 3890 | KL | ATGTCATCGGGTATACCGCA |
| 3891 | KL | CGATGAATGAGCCGTATACA |
| 3892 | KL | CCTGCAGTACTATCGCTGCA |
| 3893 | KL | TCACATGAAGTTCCGCCAAT |
| 3894 | KL | GATCTGCAGCATAACGATAG |
| 3895 | KL | TTAACGACCGCACAGCTCCG |
| 3896 | KLF13 | GGCGAAGTGGTCCACATAGG |
| 3897 | KLF13 | CTTTCTCGCAGCCCGCGTAG |
| 3898 | KLF13 | GAATGCTGCAGCGGCGCGGC |
| 3899 | KLF13 | CCGCGCCGCTGCAGCATTCC |
| 3900 | KLF13 | AAGCACAAGTGCCACTACGC |
| 3901 | KLF13 | CCGACCTCGAGTCCCCGCAG |
| 3902 | KLF17 | CAGTAGCTCATACCACGCTC |
| 3903 | KLF17 | GCTCTCCTACGGGCATTAGT |
| 3904 | KLF17 | CTTCATGTACGGCCGACCGC |
| 3905 | KLF17 | ATGAGCTTAGACGACATATG |
| 3906 | KLF17 | GTCGTCTAAGCTCATCAGAA |
| 3907 | KLF17 | CCGGTGGCAGGCGGCGCACC |
| 3908 | KLF4 | GTGGTGGCGCCCTACAACGG |
| 3909 | KLF4 | AGCCCGCGTAATCACAAGTG |
| 3910 | KLF4 | GCGCGGCGGCCCGCCGTTGT |
| 3911 | KLF4 | TCTTTCTCCACGTTCGCGTC |
| 3912 | KLF4 | CACCCACACTTGTGATTACG |
| 3913 | KLF4 | GAGAAGACACTGCGTCAAGC |
| 3914 | KLHL32 | TACAGGTGGAGTAACTAATA |
| 3915 | KLHL32 | TACCTGAGGCAGCGTTCAGA |
| 3916 | KLHL32 | CTCACCTGGATACAAGCCAG |
| 3917 | KLHL32 | TGCCGTCTGAACGCTGCCTC |

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|---|---|---|
| 3918 | KLHL32 | CGACATCACCCTGATTGCTG |
| 3919 | KLHL32 | TCTGCTGATTCAGCGCTGCC |
| 3920 | KLK13 | CAGGGGTTAGGCGGTTGTTG |
| 3921 | KLK13 | GTAGCCGCCCTTGCACTAGT |
| 3922 | KLK13 | CAAGCACGCCCTAGGGCGTG |
| 3923 | KLK13 | ACTCCTCATCTGAGCGAAGT |
| 3924 | KLK13 | GTGTCTCAAGATACGTCCTG |
| 3925 | KLK13 | CATCCAACTTCGCTCAGATG |
| 3926 | KLK14 | TTGGTGGCCATACGTGCACC |
| 3927 | KLK14 | AAAGCAGGGCGCCTCCGCAG |
| 3928 | KLK14 | GCTGACAGCACTTCAAGTCC |
| 3929 | KLK14 | GGACTTGAAGTGCTGTCAGC |
| 3930 | KLK14 | ACCCAGAGCCCAAGACCCTC |
| 3931 | KLK14 | GCTGTGTCTTCATGTCCCTG |
| 3932 | KLLN | CCGTGCACGTTTGGGGTTAC |
| 3933 | KLLN | ACCCGGCAGGATGGATCGCC |
| 3934 | KLLN | CCGCCGATTCTTACAGAACG |
| 3935 | KLLN | TCCGTACTTTCCACTCAACC |
| 3936 | KLLN | AACCCCAAACGTGCACGGTC |
| 3937 | KLLN | CAGTCGGAACTACTTTCCGA |
| 3938 | KLRK1 | CTGCTTCATCGCTGTAGCCA |
| 3939 | KLRK1 | TCAAGGGAATTTGAACTTCT |
| 3940 | KLRK1 | GAAGTTCAAATTCCCTTGAC |
| 3941 | KLRK1 | TCTGAAAGTATACAGCAAAG |
| 3942 | KLRK1 | TTTGAGACATACAAGAAGCC |
| 3943 | KLRK1 | TCATTATTATGGTAACAATA |
| 3944 | KMT2C | GGGGAAGCGCCATCTTTGCG |
| 3945 | KMT2C | GACACAGATCGCTGAAGAGT |
| 3946 | KMT2C | TCTTCAGCGATCTGTGTCTG |
| 3947 | KMT2C | AACAGAAACAGAAACGATTG |
| 3948 | KMT2C | GAAAACTGCAGTGGAAGATG |
| 3949 | KMT2C | TCCTCGGGGGGTGGTGGCGG |
| 3950 | KMT2D | CAGAGAGCACAACGCCGCAC |
| 3951 | KMT2D | CTCCCGCTGCCCGTGTAGAC |
| 3952 | KMT2D | CTCACCATTGGTGTGCTGCA |
| 3953 | KMT2D | CCGACCATGCAGCACACCAA |
| 3954 | KMT2D | CAGGCTTCAGGAGACTCCTC |
| 3955 | KMT2D | ACAGAGACCTCTCCCACATG |
| 3956 | KRAS | TCTCGACACAGCAGGTCAAG |
| 3957 | KRAS | CAATGAGGGACCAGTACATG |
| 3958 | KRAS | TTCTCGAACTAATGTATAGA |
| 3959 | KRAS | CAGGACTTAGCAAGAAGTTA |
| 3960 | KRAS | GATGTACCTATGGTCCTAGT |
| 3961 | KRAS | AGCAAAGAAGAAAAGACTCC |
| 3962 | KRT15 | AGACCTGAGACGCACGATGC |
| 3963 | KRT15 | GCTCCTGCATCGTGCGTCTC |
| 3964 | KRT15 | CCACCACCATCGACAACTCC |
| 3965 | KRT15 | TGTGGACCTGACCCGTGTGC |
| 3966 | KRT15 | CCGGCGGTTCTTCTCCGCCA |

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|---|---|---|
| 3967 | KRT15 | TGATGTCAGCCTCAACGCCC |
| 3968 | KRT6A | TCTCTTTCAGGTGCGGTTCC |
| 3969 | KRT6A | AGGCAGCTGGACAGCATTGT |
| 3970 | KRT6A | TGGGATCGATTTGCAGGTTG |
| 3971 | KRT6A | AAATCGATCCCACCATCCAG |
| 3972 | KRT6A | TGAATTTGTGACTCTGAAGA |
| 3973 | KRT6A | CGCCTGGACTCAGAGCTCAG |
| 3974 | KRT75 | CCTATACCAGTGAGCTCCGA |
| 3975 | KRT75 | TGATGCTTTCCAGCTGCCGT |
| 3976 | KRT75 | CAAGGTCAAATCTCTGCCCG |
| 3977 | KRT75 | CTCGGGCAGAGATTTGACCT |
| 3978 | KRT75 | CACCGACCTGGGTCTGCAAC |
| 3979 | KRT75 | CGAGGTCAAAGCACAATACG |
| 3980 | KRTCAP2 | ACCGAGTCTGTGTCACCACC |
| 3981 | KRTCAP2 | CGAAGAGACCCGAACCAAGC |
| 3982 | KRTCAP2 | GCAGATGTACAGCCGTCAGC |
| 3983 | KRTCAP2 | AAGATTCTCCAGATTATTGA |
| 3984 | KRTCAP2 | CAACCAGGCCTTCAATAATC |
| 3985 | KRTCAP2 | GATGTAGTACAGACCAACCA |
| 3986 | KSR1 | GTGGCAGACCTGCGACAGCC |
| 3987 | KSR1 | CTCCAAATATCATGCTCTTC |
| 3988 | KSR1 | AGAAAACTCACGTGGCAGGA |
| 3989 | KSR1 | TCTACAGGCAGGGGCTTCTT |
| 3990 | KSR1 | GCAGGTTCTCCACCAAGTCC |
| 3991 | KSR1 | TGCCAGAAGAGCATGATATT |
| 3992 | KTN1 | ACCTCTCTCTTATCTACCAC |
| 3993 | KTN1 | CTGAAGACCGAAACTGACAA |
| 3994 | KTN1 | CTCTCATGGTACCATCAAAA |
| 3995 | KTN1 | TTGTGTTGTAGACTTGCTAA |
| 3996 | KTN1 | AGAAAACATCATAGTCTTCA |
| 3997 | KTN1 | TAAAGATGACCAGGATAAAA |
| 3998 | LAIR2 | AGTTATAATGTGTTTCGACT |
| 3999 | LAIR2 | TGCCTCTATTATAAGCCCCC |
| 4000 | LAIR2 | CTGTTTACAGAAAGCTCTGG |
| 4001 | LAIR2 | CATTCATGGTGCATCAAATC |
| 4002 | LAIR2 | ATGACTTACCCTCCTGCGTG |
| 4003 | LAIR2 | TTCTCTTCCAGTGCTCTGCC |
| 4004 | LAMA1 | GGGTTTCGGACGGGCCGACC |
| 4005 | LAMA1 | CGCTGTTGCCATCACAGATC |
| 4006 | LAMA1 | CACCAATCTGGAATAATAGG |
| 4007 | LAMA1 | GCTGCCAATGCCCCTCGACC |
| 4008 | LAMA1 | TCACTGGGTCACAATCACTC |
| 4009 | LAMA1 | CCAGTTATTGGTGCCATCTA |
| 4010 | LAMB2 | CCAACGTGTGTAGACGAGTC |
| 4011 | LAMB2 | CCTGACTCGTCTACACACGT |
| 4012 | LAMB2 | CCAGGTCATCTATCGTGTGC |
| 4013 | LAMB2 | GAAATATCGGTACACATGCC |
| 4014 | LAMB2 | ACTACATCATCCCAGTGCCG |
| 4015 | LAMB2 | ACTCTGAATCCGTGAGCTGT |

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|---|---|---|
| 4016 | LARS2 | CTGAAAATGCCGCAGTCGAG |
| 4017 | LARS2 | CCGTGCTATGGTGTCGCTGA |
| 4018 | LARS2 | CCATCAGCGACACCATAGCA |
| 4019 | LARS2 | ATGTAGATTCCTCTCGACTG |
| 4020 | LARS2 | TGGGCCAGATGTCATCAAGT |
| 4021 | LARS2 | GCATCAACGAATAAAAGAAC |
| 4022 | LCE3D | TGGGCCTCTGGCGCCGGCAT |
| 4023 | LCE3D | CAAGGCGGGGGCTCTGGCTG |
| 4024 | LCE3D | GTGGGGGTTGGCACTGCTGC |
| 4025 | LCE3D | TGTCTGCCTCCAGCTTCCTC |
| 4026 | LCE3D | AGCAGCAGCCTCCAGAGCCA |
| 4027 | LCE3D | GCCCCAAGCTCTGGGGGCTG |
| 4028 | LDB2 | CTGGTCGCAGTCCACCGTGA |
| 4029 | LDB2 | TGCTTCTCGGGACTAACTCT |
| 4030 | LDB2 | GGACTGCGACCAGTGTACCA |
| 4031 | LDB2 | CATTTAGGCACAAGATCCTC |
| 4032 | LDB2 | TGCAGGATAGTGACAACCTC |
| 4033 | LDB2 | ATCTTACCCTGAGGTAGTTG |
| 4034 | LDHA | AGCCCGATTCCGTTACCTAA |
| 4035 | LDHA | TTGCTTATTGTTTCAAATCC |
| 4036 | LDHA | GGCTGGGGCACGTCAGCAAG |
| 4037 | LDHA | TACCTTCATTAAGATACTGA |
| 4038 | LDHA | GTCCAATATGGCAACTCTAA |
| 4039 | LDHA | GGGGAACATGGAGATTCCAG |
| 4040 | LDHB | TTACCCAAACACCGCGTGAT |
| 4041 | LDHB | GGGGAACATGGCGACTCAAG |
| 4042 | LDHB | ACCACAATTATGATGCAATC |
| 4043 | LDHB | TCCTGATTGCATCATAATTG |
| 4044 | LDHB | TGCATAAGATGGTGGTTGAA |
| 4045 | LDHB | GGCTGATGAACTTGCTCTTG |
| 4046 | LDHC | CTTCCAATTACACGAGTTAC |
| 4047 | LDHC | TTACCTGTAACTCGTGTAAT |
| 4048 | LDHC | GGGAGAAACTCGCCTTGCCC |
| 4049 | LDHC | TCATTATAGCCACATTACGT |
| 4050 | LDHC | TGTCCAATGCAACATCAACA |
| 4051 | LDHC | TGCCCTTGTTGATGTTGCAT |
| 4052 | LDHD | GGATTCGGTCCATATGCGTC |
| 4053 | LDHD | GCAGCACGGGCGCGATGAGT |
| 4054 | LDHD | GTTGAGCACGTTGTCCCGCA |
| 4055 | LDHD | GCCGGTGCCGAATGGGATGA |
| 4056 | LDHD | CATCGCGCCCGTGCTGCTCT |
| 4057 | LDHD | CGTGTGCAGCAGCCGCCCGT |
| 4058 | LDLRAD2 | GCTCGCACGCCGCATCGCGC |
| 4059 | LDLRAD2 | GTGGCTCCGGACACCGACTG |
| 4060 | LDLRAD2 | CAAAGCTGCGTCTTGTCTCG |
| 4061 | LDLRAD2 | GCCTACTTCCGCTGCCAGAA |
| 4062 | LDLRAD2 | CGCCCTGACTGCAACTGCTT |
| 4063 | LDLRAD2 | CAAGCCTCGTGTGTGACCCC |
| 4064 | LHX2 | ACACTTCAACCATGCCGACG |

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|---|---|---|
| 4065 | LHX2 | GATCTGGCGGCCTACAACGC |
| 4066 | LHX2 | CGTGGACAAGTCGACAGACG |
| 4067 | LHX2 | GTTAAGACGGACGTCACAGT |
| 4068 | LHX2 | CGCGAGCTGCTTCAAGTCCT |
| 4069 | LHX2 | CGCGGCGCGGTCACTGCTGA |
| 4070 | LIAS | ACCTTAAGGTGACGCCTTGT |
| 4071 | LIAS | GAAGCTCGATGTCCCAATAT |
| 4072 | LIAS | TTAGGTTAAGACTACCTCCA |
| 4073 | LIAS | GCCAACAAGGCGTCACCTTA |
| 4074 | LIAS | AAGGAGCTTAACGGTCTGAC |
| 4075 | LIAS | CCCTACCATGATCGTGGCTG |
| 4076 | LIG1 | GGGATTCCGAAGCGTCGCAC |
| 4077 | LIG1 | TTCTCACCTGTGCGACGCTT |
| 4078 | LIG1 | GGCTCTGAAACGCTTTCCGT |
| 4079 | LIG1 | GGACCTACCTGGCCTTTAGC |
| 4080 | LIG1 | CTTCACCGGAGAGTCACTCT |
| 4081 | LIG1 | CGCAGAAGCAGAGACCCCGA |
| 4082 | LIN54 | TGATAAGCCGTTGCTGTGGC |
| 4083 | LIN54 | TCCAGCTCAGTATGTTACTC |
| 4084 | LIN54 | GCAAGCAACTCTACCTTTAC |
| 4085 | LIN54 | CATTGAATGGAAGCCGTGCC |
| 4086 | LIN54 | GGGGTTGTATTAACAACCAC |
| 4087 | LIN54 | TTGTTAATACAACCCCAGTG |
| 4088 | LIN7A | CTCCGTTCACTGATAGCAGC |
| 4089 | LIN7A | CTGTCCCGAATTCCGTGCGA |
| 4090 | LIN7A | TTTGGCAGTTCAACTACTCG |
| 4091 | LIN7A | GCTGAAGCCGAGCGTCACTT |
| 4092 | LIN7A | CAATGTCGCCATGTCTGCCG |
| 4093 | LIN7A | CCTTTGCTGTTGCCCTCGCA |
| 4094 | LIPI | GTGTAATCTAATCTGCTATA |
| 4095 | LIPI | ATTCACGGATACAGACCAGT |
| 4096 | LIPI | TATGGCTTCAGAACTTCGTA |
| 4097 | LIPI | AGCTTAGGGGCTCATATCAG |
| 4098 | LIPI | ATATAGCAGATTAGATTACA |
| 4099 | LIPI | TTTGTTGGAAAGATATTTCA |
| 4100 | LMNA | GCGCCGTCATGAGACCCGAC |
| 4101 | LMNA | GCCGAGCCTGAGCAGCTATC |
| 4102 | LMNA | CCTGCAGCGCATCCGCCAGC |
| 4103 | LMNA | TCTCAGTGAGAAGCGCACGC |
| 4104 | LMNA | CCAGAAGAACATCTACAGTG |
| 4105 | LMNA | CCTCACTGTAGATGTTCTTC |
| 4106 | LMO1 | TGTGCCGACGCGACTACCTG |
| 4107 | LMO1 | CCCACCTCAGGTAGTCGCGT |
| 4108 | LMO1 | CGAGGTGATACACGTTGTCC |
| 4109 | LMO1 | AGCGCCCGAGATGATGGTGC |
| 4110 | LMO1 | CGGGACCATGGTGTTGGACC |
| 4111 | LMO1 | GCTGATCCCAGCCTTCGAGA |
| 4112 | LONRF3 | TGTGGGACGGCTTTAAGTGC |
| 4113 | LONRF3 | GATTCGCCCCCGGGACGCCA |

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|---|---|---|
| 4114 | LONRF3 | AGCATGTAAGCTCCGCCCGA |
| 4115 | LONRF3 | GATGGACCCAGCTAAAGTGA |
| 4116 | LONRF3 | ACCGATTGCTATAAAGCAAG |
| 4117 | LONRF3 | GCTCCCACATTGTTCTAGTC |
| 4118 | LPIN3 | TCCAGCTCCGAGTCGCTCTT |
| 4119 | LPIN3 | AACATCCCCTAAGAGCGACT |
| 4120 | LPIN3 | GTCTCTCTAGGCATTATAAC |
| 4121 | LPIN3 | CAGCGCTTTACTTCCCCCAA |
| 4122 | LPIN3 | GTCATCCAGGTAGATGTCAC |
| 4123 | LPIN3 | GGCTTGCAGGGAGAGGATCA |
| 4124 | LPO | CGTACCTGGTTCGGGAGTCC |
| 4125 | LPO | CCAACAGGGCTCTGGCGCGC |
| 4126 | LPO | GTTATTGCAGTCTCCCGTAA |
| 4127 | LPO | ACGCGCACAGCCATCCGCAA |
| 4128 | LPO | CTGACTCACAGTATCGGAGA |
| 4129 | LPO | CAGCCCTTACCGCACCATTA |
| 4130 | LRP1 | CTGCCCAGACGGATCTGACG |
| 4131 | LRP1 | AAAGTCCTTACCTCGGCAGT |
| 4132 | LRP1 | GCTGGCGGTGCGACGGTGAG |
| 4133 | LRP1 | GCCAAACGAGCATAACTGCC |
| 4134 | LRP1 | CATCGAGTGTGGGGACACAA |
| 4135 | LRP1 | CATTGTGTCCCCACACTCGA |
| 4136 | LRP1B | ACCCAATTCGTATGCAAAAG |
| 4137 | LRP1B | AGACACAAGTCACGTGATCG |
| 4138 | LRP1B | AGCAAATGGCACTGCGACTC |
| 4139 | LRP1B | GCCCATTTCCGCAAGAAAAC |
| 4140 | LRP1B | AAAGACTCGTCTGAATCATC |
| 4141 | LRP1B | TGGTGACCAGACAGATGAAA |
| 4142 | LRP2 | CACGTCAGAGACTGCCCCGA |
| 4143 | LRP2 | CGCGTCATCTGAACAGTCTT |
| 4144 | LRP2 | CAAAGACTGTTCAGATGACG |
| 4145 | LRP2 | TGGTCGCACCTGTATTCACT |
| 4146 | LRP2 | AGCTGTTGTGACCTGCCAGC |
| 4147 | LRP2 | GGATGCATTGTCCCTCACTC |
| 4148 | LRRC45 | GACCTGCGCTGGAATAACGT |
| 4149 | LRRC45 | GGCCAACGTTATTCCAGCGC |
| 4150 | LRRC45 | CAACACCGTGCTGCGCTTTC |
| 4151 | LRRC45 | TCTCCTAGGGCAACAACCTT |
| 4152 | LRRC45 | TAAGTCCAGAAAGCGCAGCA |
| 4153 | LRRC45 | TCTGAATGGACTTGTTCTGT |
| 4154 | LRRC70 | AAGATGCTAGCCAGTCTCGA |
| 4155 | LRRC70 | GCCTTGCCTACGACTGTTTC |
| 4156 | LRRC70 | ACGTAATGCTCTGCCACGCA |
| 4157 | LRRC70 | TTCATCAAACGCTTAGATCC |
| 4158 | LRRC70 | TAACAACCAGAAACAGTCGT |
| 4159 | LRRC70 | AATTCTTAGGAATACTCGAA |
| 4160 | LTB4R2 | CGGCTGCTACAGCGTGACGC |
| 4161 | LTB4R2 | CTTCAGTTCTAGCGTCAACC |
| 4162 | LTB4R2 | CGGCCGGGACGGCGAGCAAC |

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|---|---|---|
| 4163 | LTB4R2 | CGAAAGCGGTCAGAGTCTCC |
| 4164 | LTB4R2 | TCGGTCTGCTACCGTCCCCC |
| 4165 | LTB4R2 | CCACGCAGTCAACCTTCTGC |
| 4166 | LUC7L3 | GTATTTGTGAACAATTCCGC |
| 4167 | LUC7L3 | CCGGGTAGATGACCATTTGA |
| 4168 | LUC7L3 | CAATAGGCCGCTGGCCCAAC |
| 4169 | LUC7L3 | AATTGATGTACTTCTGCAAC |
| 4170 | LUC7L3 | GGCATCTCCTACTATTAAAA |
| 4171 | LUC7L3 | ACAAATACACGTTCTGATCT |
| 4172 | LY6G6C | CAACCAAACCAACCGCAAGC |
| 4173 | LY6G6C | TGGTGTGCCACAGCGCAGAT |
| 4174 | LY6G6C | TCGCTGTCACTCCTGCTACA |
| 4175 | LY6G6C | GAGCAGCATAAGGGCTTTCA |
| 4176 | LY6G6C | CAAGGTATGCATGTGTTGTC |
| 4177 | LY6G6C | CCCTGTCTGTTCTGCTCTGC |
| 4178 | LYSMD3 | TTACCGTACAACAGTACTGA |
| 4179 | LYSMD3 | CAACGTAAAGACCCCTATTA |
| 4180 | LYSMD3 | TCAATACTCTTCCGAACAAC |
| 4181 | LYSMD3 | GTGTATGAACTTCGATCCAG |
| 4182 | LYSMD3 | AGGACAAAGTGTTTCGGTCA |
| 4183 | LYSMD3 | TCCCCAGTCTGCTCCATAAT |
| 4184 | LYST | CAATGTTATGAACACCCGAT |
| 4185 | LYST | TAAATCTGAAGCACGTCCTG |
| 4186 | LYST | ACTTCAAAGTATACGACTTT |
| 4187 | LYST | AGCTACTGAAGCCGCTCCCG |
| 4188 | LYST | ACAGGTATCTTCCATACCAG |
| 4189 | LYST | GATACCTGTCCAAGAAGAAA |
| 4190 | MACF1 | CCTTTACAGATGAACGGGAC |
| 4191 | MACF1 | GGTCCTCTCAGGCATCAAAC |
| 4192 | MACF1 | GTCTTACCTGTCGCTGCTTT |
| 4193 | MACF1 | TTGTTTGCAGCCCCGGGAGA |
| 4194 | MACF1 | TCACCAGTTTGATGCCTGAG |
| 4195 | MACF1 | TAAGTGCTTGTTGACCCACT |
| 4196 | MAGEA6 | GCTCACCCAATATTTCGTGC |
| 4197 | MAGEA6 | AAAGATGTACACGTGGCCGA |
| 4198 | MAGEA6 | AGCTTCCGATTCCTTGCAGC |
| 4199 | MAGEA6 | CTCTCAAAGCCCACTCATGC |
| 4200 | MAGEA6 | GGAGGGAAGACAGTATCTTC |
| 4201 | MAGEA6 | CCTACCCACTCCTGCATGAG |
| 4202 | MAGEB6 | ACCCAGACAAGCGCGAGAAG |
| 4203 | MAGEB6 | ATCCTCTTCTCGCGCTTGTC |
| 4204 | MAGEB6 | TTCATATTCAAAATCCGATG |
| 4205 | MAGEB6 | TTCTTTCAATTCAACGCCAA |
| 4206 | MAGEB6 | GACAGCAGTAACACCAGTCC |
| 4207 | MAGEB6 | GGTCTCTTGGCGTTTCTCAC |
| 4208 | MAGEL2 | GTCGAGCCGCCACGCCGCTC |
| 4209 | MAGEL2 | GGGCCTCTTCTATAGACCGC |
| 4210 | MAGEL2 | CCCGCATCAGAACCGTAGGG |
| 4211 | MAGEL2 | GCCTGTCTATAGCCGCCCTA |

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|---|---|---|
| 4212 | MAGEL2 | TGACTCGAGTCCTCCGGCGG |
| 4213 | MAGEL2 | AAAATCCAAACGTACACTCG |
| 4214 | MAMDC4 | ACTAATGTCCCGCCAGCCGC |
| 4215 | MAMDC4 | TGGCGGGACATTAGTACCTC |
| 4216 | MAMDC4 | CTCTAGATGACCTAGAGTTC |
| 4217 | MAMDC4 | CTAGAGCCACAGCGCCCCTG |
| 4218 | MAMDC4 | AGCTCACTCGGAAGTCACCC |
| 4219 | MAMDC4 | CAGGAGTTGGCAGTGACCAC |
| 4220 | MAML2 | AGTTAGCCATTACTTTCGAC |
| 4221 | MAML2 | CAGCGGCCAGTCGAAAGTAA |
| 4222 | MAML2 | ACGATAGCACTGTGCACTCT |
| 4223 | MAML2 | GGCAGACAGCGATCCGAGCC |
| 4224 | MAML2 | ATGTAACCACTTCCAGTGTT |
| 4225 | MAML2 | GAGGTGGCCTTGACAAATGT |
| 4226 | MAP2K1 | CCATACTTACTCCGCAGAGC |
| 4227 | MAP2K1 | TATGGTGCGTTCTACAGCGA |
| 4228 | MAP2K1 | CCCGACGGCTCTGCAGTTAA |
| 4229 | MAP2K1 | TTGGAACAGGACCAACTTGG |
| 4230 | MAP2K1 | CAATGGCGGTGTGGTGTTCA |
| 4231 | MAP2K1 | CTTTCTCCAGCTAATTCATC |
| 4232 | MAP2K2 | TACGGGGCCTTCTACAGTGA |
| 4233 | MAP2K2 | GATCTCCCCGTCACTGTAGA |
| 4234 | MAP2K2 | TCTCTGCAGGGCAAACCTGG |
| 4235 | MAP2K2 | CCTCTAGGACGGCGGCTCCC |
| 4236 | MAP2K2 | CCTGGGGAAAGTCAGCATCG |
| 4237 | MAP2K2 | TTGACGAGCAGCAGAAGAAG |
| 4238 | MAPK1 | GGTGCAGAACGTTAGCTGAA |
| 4239 | MAPK1 | ACACCAAGTCCATTGATATT |
| 4240 | MAPK1 | TGCAAACAGATATATAGTAC |
| 4241 | MAPK1 | GCCTACAGACCAAATATCAA |
| 4242 | MAPK1 | GTGTGGCCACATATTCTGTC |
| 4243 | MAPK1 | GCAGTAGGTCTGGTGCTCAA |
| 4244 | MAPK10 | CAGCTCCCGGTACGCTCTCT |
| 4245 | MAPK10 | CACATGCCAAGAGAGCGTAC |
| 4246 | MAPK10 | TGACAACCAGTTCTACAGTG |
| 4247 | MAPK10 | CCACTTCCACACTGTAGAAC |
| 4248 | MAPK10 | TCTTACAGAACTTATCTACA |
| 4249 | MAPK10 | AACTGCTTGTCATATATCTG |
| 4250 | MAPK3 | GCGTAGCCACATACTCCGTC |
| 4251 | MAPK3 | CCACGTGCGCAAGACTCGCG |
| 4252 | MAPK3 | CCCTCTGACCTTAAGGTCGC |
| 4253 | MAPK3 | CCACGCGAGTCTTGCGCACG |
| 4254 | MAPK3 | ATACCAAGTCCATCGACATC |
| 4255 | MAPK3 | CGGAGTATGTGGCTACGCGC |
| 4256 | MAPK8IP1 | TTGCCCTTACCCGTAAGGAC |
| 4257 | MAPK8IP1 | ACTCATCAGTGATCTCCGAG |
| 4258 | MAPK8IP1 | CCTCTGTGCTGCTATGCAAA |
| 4259 | MAPK8IP1 | CCCTGACTTACCTGTCTTCA |
| 4260 | MAPK8IP1 | ACGTCATTGCCCTTGTGATA |

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|---|---|---|
| 4261 | MAPK8IP1 | AAAAGCACAGTTGGCAGGAT |
| 4262 | MAPT | CTTGGCGGAAGACGGCGACT |
| 4263 | MAPT | GGGGGCCCACCTTCCGCTGT |
| 4264 | MAPT | CCGCTGCGATCCCCTGATTT |
| 4265 | MAPT | GATCTCCGTGTGGGGCTGCG |
| 4266 | MAPT | TGCTAAGAGCACTCCAACAG |
| 4267 | MAPT | AGATGTGACAGCACCCTTAG |
| 4268 | MAST1 | GAACATACTGCCGCCGGGGA |
| 4269 | MAST1 | GTATGTTCCGCCGCACCAAG |
| 4270 | MAST1 | GCAGCTGCCGCACCAGTAAT |
| 4271 | MAST1 | GGAGTGGGGTCTCGGTAGCG |
| 4272 | MAST1 | TCTCATAGGCAGCAGTCCCC |
| 4273 | MAST1 | AGGGACTCACCTTCGGGAGG |
| 4274 | MAT2B | AGGAAGTTAACATCCCTAAT |
| 4275 | MAT2B | GTAACCAGAACCCTCCTATT |
| 4276 | MAT2B | CCAGCTCCCCTAAATTTGTA |
| 4277 | MAT2B | CTGCACAATGTACTATAACA |
| 4278 | MAT2B | TGCTGCCTCTCAACTTAATG |
| 4279 | MAT2B | CTCTCTATACACTTTGTTCC |
| 4280 | MAX | ATGCACTGGAACGAAAACGT |
| 4281 | MAX | GCATCAAACTTTGACGATGA |
| 4282 | MAX | CGTACCGCAGATTGAAACCT |
| 4283 | MAX | TATTCCAGGAAGAGCAACCG |
| 4284 | MAX | GACTCAGTCCCATCACTCCA |
| 4285 | MAX | AAGTGTTCATAAGGAAAGAC |
| 4286 | MBD2 | CGGCGACTCCGCCATAGAGC |
| 4287 | MBD2 | GGAGCCGGTCCCTTTCCCGT |
| 4288 | MBD2 | AGTCTTGAAAGCGCATGCCA |
| 4289 | MBD2 | GCGGAGACTTGCCCTGTGAT |
| 4290 | MBD2 | TGGTTCTGCCTGGAGTATGC |
| 4291 | MBD2 | ACAAGCTCTGCGCCAATCAC |
| 4292 | MBD3 | CGTGGTGTTGAGCCATACGC |
| 4293 | MBD3 | GAGCACCTTCGACTTCCGCA |
| 4294 | MBD3 | GCTTGAAGATGGACGCCGTC |
| 4295 | MBD3 | GTTCCGCAGCAAGCCGCAGC |
| 4296 | MBD3 | GGCCGAGAGCTGTCCCGTGA |
| 4297 | MBD3 | TTGAGCTCACCTGGCGCGGC |
| 4298 | MBLAC2 | CCTCTACCAGTTCGACCGCG |
| 4299 | MBLAC2 | TCAAGAACGTTTCTACGAGT |
| 4300 | MBLAC2 | GTAGGGGATGTGATCAACCT |
| 4301 | MBLAC2 | TAAACTTGCAAGAGATCGCA |
| 4302 | MBLAC2 | CGTCCGCACCACCTCGCTAT |
| 4303 | MBLAC2 | CACGTGCACTTCGACCACTC |
| 4304 | MC1R | CATCGCCTACTACGACCACG |
| 4305 | MC1R | CGTTGCTCCCGCTCACCAGC |
| 4306 | MC1R | TGAGGGTGACAGCGCCTTTA |
| 4307 | MC1R | CGTGCTGTACGTCCACATGC |
| 4308 | MC1R | CTTGAAGATGCAGCCGCACG |
| 4309 | MC1R | TGGCCACCATCGCCAAGAAC |

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|---|---|---|
| 4310 | MCC | CCCCGTCGCCGTCGCACGTC |
| 4311 | MCC | CGCCATACTCGAGCAGCTTC |
| 4312 | MCC | AACTCGACTACAGAGCGTGC |
| 4313 | MCC | CGCCCGATTAACCCCAGCAC |
| 4314 | MCC | CGGGCGCATGATGGCGGCCG |
| 4315 | MCC | CGGAAGCTCTTTGCATCAGC |
| 4316 | MCF2L | AGGTCCATTTGTCCCGTCGC |
| 4317 | MCF2L | CTTCAGCGAGATTCCGGACA |
| 4318 | MCF2L | CTTGTCCGGAATCTCGCTGA |
| 4319 | MCF2L | TGGCACTTACTGCGATGCGC |
| 4320 | MCF2L | AAGCAAAGCGCTTCTTTAGC |
| 4321 | MCF2L | AAGCGCTTTGCTTACCTGTC |
| 4322 | MCF2L2 | ATTTACAGCTATTCGTGTCA |
| 4323 | MCF2L2 | AGTCAGACCCCTGATGGCGG |
| 4324 | MCF2L2 | CTATTATCTCCACCGCCATC |
| 4325 | MCF2L2 | TGAGTTTAAAACGAAAGTGC |
| 4326 | MCF2L2 | TCGACAGACGAAGAGACAAG |
| 4327 | MCF2L2 | CAATGTCAGTGAATGTCCTC |
| 4328 | MCM2 | CTACCAGCGTATCCGAATCC |
| 4329 | MCM2 | TTGGTGATGCGGTCGTACTT |
| 4330 | MCM2 | CGCCATTCTCCTCGCAGATC |
| 4331 | MCM2 | AACCAGCTGATCCGCACCAG |
| 4332 | MCM2 | AGTCCTCATAGTTCACCACC |
| 4333 | MCM2 | CAACAAGTGCAATTTCGTCC |
| 4334 | MCM3AP | CCACTTCGAACACGCTCAGC |
| 4335 | MCM3AP | TCGGGTGAAGAGAACCGATC |
| 4336 | MCM3AP | CGTGCCCATGTACTCTGACG |
| 4337 | MCM3AP | CCCTACCTCGTCAGAGTACA |
| 4338 | MCM3AP | TTTCCAGGCATCTGCAGCCC |
| 4339 | MCM3AP | GAAAAGTTTGCATAAAGACA |
| 4340 | MCRS1 | CCCTTTACAGGTTCATCAAG |
| 4341 | MCRS1 | GCCTGGCAAAATCTTCTACC |
| 4342 | MCRS1 | GCTGCTAGATTCATCCCTGA |
| 4343 | MCRS1 | CACGACATGACACGTGGCAC |
| 4344 | MCRS1 | TGACCAAGGATCTGGGCCGC |
| 4345 | MCRS1 | CTGGAGGAGCTTCTCCGTTT |
| 4346 | MDGA1 | CGAGCGTATTGCACGCACGC |
| 4347 | MDGA1 | CGAGGCGCTACCTGCCGTCT |
| 4348 | MDGA1 | CTCGCACATCGCTCACCGTC |
| 4349 | MDGA1 | CAGACGGTGAGCGATGTGCG |
| 4350 | MDGA1 | CGTGTGCGGCATCCCAGACA |
| 4351 | MDGA1 | ACACGTTACGCACAGACACC |
| 4352 | MDH1 | TCAAACACCGTAACGTCCTT |
| 4353 | MDH1 | GGTGTTTGATAAGGACGATA |
| 4354 | MDH1 | TACCTTACCTTGATTACAAC |
| 4355 | MDH1 | CCAATCAGAGTCCTTGTGAC |
| 4356 | MDH1 | ATCTCTGATGGCAACTCCTA |
| 4357 | MDH1 | ACCGTCCAGGACACCCATCA |
| 4358 | MDH2 | TGGTGTTGAACAGGTCGTCC |

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|---|---|---|
| 4359 | MDH2 | GATCTGCGTCATTGCCAATC |
| 4360 | MDH2 | ACAGGGACGTTGACTCGAGC |
| 4361 | MDH2 | CGAGTCAACGTCCCTGTCAT |
| 4362 | MDH2 | CAGGCAGCTGTTCAGGTCCG |
| 4363 | MDH2 | CTACCACATCACAACCTTTC |
| 4364 | ME1 | TGCCGTAGTCCAATGTAGAG |
| 4365 | ME1 | CTTAAAGATCCACTCTACAT |
| 4366 | ME1 | TTGGCTCTATATACAGCTTG |
| 4367 | ME1 | TATAGAGCCAATTTACCCAC |
| 4368 | ME1 | ACACCTGATTGTGATGGCCT |
| 4369 | ME1 | TCATCACTGAGGCTGCCCTA |
| 4370 | MED7 | TTTCAAGCCGTTGACGTTTC |
| 4371 | MED7 | TTGCTATCATCAGCATCCAT |
| 4372 | MED7 | TGATCTTATCATCCGCCCTT |
| 4373 | MED7 | GATGATAGCAACAATTGTAC |
| 4374 | MED7 | TCGATGCCCTGACTTTCCAA |
| 4375 | MED7 | GGATGATAAGATCATCACAT |
| 4376 | MEF2B | GAGTCACTTACATACAGCCG |
| 4377 | MEF2B | CGGAGGTGTTTAGTCCCCCT |
| 4378 | MEF2B | TACGGGGCCTTACCGCCACC |
| 4379 | MEF2B | CCCGTATACCACATCTGGGC |
| 4380 | MEF2B | ACCCCCACTGTACCTGCCGA |
| 4381 | MEF2B | ATCCGGCCTTGCCCCGACCC |
| 4382 | MEGF9 | AGACCGATTATTGCATTGGC |
| 4383 | MEGF9 | TGAGTGTCGGCCAGGTTATC |
| 4384 | MEGF9 | CAGTGAAGCCCCTGATAACC |
| 4385 | MEGF9 | TGCCCTGCCAATGCAATAAT |
| 4386 | MEGF9 | GTTGATGCACTCACCACTCT |
| 4387 | MEGF9 | AAGATTTGTAAGCCCGAGAG |
| 4388 | MEMO1 | CTTTAGTTTACGGAGAACTG |
| 4389 | MEMO1 | AAAGACTTACGGGGCAATAA |
| 4390 | MEMO1 | CAGCTGAATGCACAGCTAGA |
| 4391 | MEMO1 | CATGCAGGATATACGTACTG |
| 4392 | MEMO1 | GATCCACTTGTTTATAAGCA |
| 4393 | MEMO1 | TCGATGTGCACTTTCCAGTG |
| 4394 | MET | CACATGGCAGATCGATCCAT |
| 4395 | MET | GACCTCACCATAGCTAATCT |
| 4396 | MET | GCAGCGCGTTGACTTATTCA |
| 4397 | MET | TAGGTTGTGGTTTCTCGATC |
| 4398 | MET | GCCAGATTCTGCCGAACCAA |
| 4399 | MET | GTATGCTCCACAATCACTTC |
| 4400 | MFSD10 | CGCTTCTCGGCTGTCGCTCG |
| 4401 | MFSD10 | TGAGCAGATCAGCCGCATCA |
| 4402 | MFSD10 | TCGCCTCTGGCCCGCAGTCA |
| 4403 | MFSD10 | CACGGCCATCGTTGCTGACC |
| 4404 | MFSD10 | ATCCCCTAGGACCCCCTCTA |
| 4405 | MFSD10 | CACCGCCATCGGGATGCCAG |
| 4406 | MFSD2A | GGGAGACTCACGATAGGCGG |
| 4407 | MFSD2A | AGTCGGGCACGAACCAGATG |

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|---|---|---|
| 4408 | MFSD2A | GAACATGGTGAGAGCCGAGT |
| 4409 | MFSD2A | TTCGTGCCCGACTTCCCACA |
| 4410 | MFSD2A | AAGCTACTGTAGAGCTATTG |
| 4411 | MFSD2A | GGAAACAAGGCGTGTCTGCT |
| 4412 | MFSD6 | AATATAGCGAGCCGTATTGC |
| 4413 | MFSD6 | GACTAACACGCCTCCGATCA |
| 4414 | MFSD6 | TCCTATAGCAACCATCGACT |
| 4415 | MFSD6 | CTGTTGCTGTACCAAGTCGA |
| 4416 | MFSD6 | GAGCAGTAGGATCACCAAGC |
| 4417 | MFSD6 | GGCGTGTTAGTCAATTATTT |
| 4418 | MICAL1 | GGGTGCTGCTCGTAGCCACC |
| 4419 | MICAL1 | TCTTAGCACCGAGTGCCCGC |
| 4420 | MICAL1 | CACGTTGTGGCGAGAGAACT |
| 4421 | MICAL1 | CGTTGACACAGAGGCGTTCC |
| 4422 | MICAL1 | GCCCCAGTACCACAAGATCA |
| 4423 | MICAL1 | ACCAAGCTGGACAAGCGAGC |
| 4424 | MICALL2 | CCTTTCGCAGGCCTTCCGCG |
| 4425 | MICALL2 | ACTCACTGGGGGAGCGGCCG |
| 4426 | MICALL2 | GATAGTGGAGGCTTCCGGGC |
| 4427 | MICALL2 | AGGCGTGAAGAGGGCCTCGG |
| 4428 | MICALL2 | GAGAGCGAATCTGAAGCCCG |
| 4429 | MICALL2 | AGATTCGCTCTCCATCCTGC |
| 4430 | MICU1 | ATGGATCGCACAAAATCTTC |
| 4431 | MICU1 | TATATAATAAAACGCTTTGA |
| 4432 | MICU1 | ATAAACACTTCTGCTTCACC |
| 4433 | MICU1 | ATTCAAATCAAACATCTTGA |
| 4434 | MICU1 | AGATATGGAAGAATTTGAAC |
| 4435 | MICU1 | CTCACTGATGACTTTCAAGG |
| 4436 | MIER1 | GGACGTGGTTAAGAACCAAC |
| 4437 | MIER1 | TGCATTGAACCTCAACCAGT |
| 4438 | MIER1 | CAGTACTACCATAACCATAA |
| 4439 | MIER1 | TGATGAACGAACATTAGAAG |
| 4440 | MIER1 | TGATCCATCAGCTGACATGC |
| 4441 | MIER1 | CATGAACTTCTCAGCCTTTA |
| 4442 | MINPP1 | ATCCAGCTGCACCTTGTTTC |
| 4443 | MINPP1 | TGCTACAGCTCTTTATCACG |
| 4444 | MINPP1 | ATGTGCTTATTTCAGCTGTG |
| 4445 | MINPP1 | TTAAAGGTGTTAAATCTCCT |
| 4446 | MINPP1 | TTTCACCTGTTCATTTGACC |
| 4447 | MINPP1 | CCTGCATTTAAATCATTTAC |
| 4448 | MIS18A | CACCGACGCGTCTTCGCTCA |
| 4449 | MIS18A | CTCCATGAGCGAAGACGCGT |
| 4450 | MIS18A | CCTTGAGACTTTGTGCTGCG |
| 4451 | MIS18A | GAAGCTATCCAAACGTGAAA |
| 4452 | MIS18A | CCGCGCAGCACAAAGTCTCA |
| 4453 | MIS18A | AAGCATTACAAATGAAGCTG |
| 4454 | MKLN1 | GTGATATTCTGAACTATAGC |
| 4455 | MKLN1 | ACTTGATTCTAAAGCTCGAA |
| 4456 | MKLN1 | CCTTGTCGATTCATTAAAAT |

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|---|---|---|
| 4457 | MKLN1 | CCAGCTTTAACTTTAGCATC |
| 4458 | MKLN1 | CCAGATGCTAAAGTTAAAGC |
| 4459 | MKLN1 | TAGTACAACCTTGTCTCAAC |
| 4460 | MLH3 | AGAACAAGGTCGCTTCTAAA |
| 4461 | MLH3 | ACAGACCCACCTCTGGATAA |
| 4462 | MLH3 | GTCCTCTCTGCTCGAGCTCT |
| 4463 | MLH3 | TTGTGCCTGTTGCTTCTCGT |
| 4464 | MLH3 | TATCCCTATCGTTTCACCAA |
| 4465 | MLH3 | AGTATTTGCCCGTTATCCAG |
| 4466 | MLLT1 | GGAGCCCCCCTACAAAGTAG |
| 4467 | MLLT1 | GTCGTGAGTGAACCCCTCCG |
| 4468 | MLLT1 | CCACTCACCGCGTCTGGGCT |
| 4469 | MLLT1 | CCCCGACTCCTCTACTTTGT |
| 4470 | MLLT1 | GGCGCCAGCCATGGACAATC |
| 4471 | MLLT1 | GCTCCTCACCTGATTGTCCA |
| 4472 | MLLT3 | GTGGATGGCCTTCAAGATGC |
| 4473 | MLLT3 | TAATCAAAGCGGACTTTCCT |
| 4474 | MLLT3 | GCCCCCAGGCATGGCTAGCT |
| 4475 | MLLT3 | CCTTACAAAGTAGAAGAATC |
| 4476 | MLLT3 | CCAGATTCTTCTACTTTGTA |
| 4477 | MLLT3 | GACTTATTCCTGCATCTTGA |
| 4478 | MLST8 | CGCCGCCCGTGTACATCCAG |
| 4479 | MLST8 | CAACAAGAACATCGCGTCTG |
| 4480 | MLST8 | CGATCCCGACGCCAGCTACA |
| 4481 | MLST8 | ATCGATGTGGGCGGACGTGA |
| 4482 | MLST8 | CGCAGCATGATTGCTGCTGC |
| 4483 | MLST8 | GTCCCAGCAGGTGAATGCCT |
| 4484 | MMP8 | AACGCACTAACTTGACCTAC |
| 4485 | MMP8 | GCAACCAGTATCAGTCTACA |
| 4486 | MMP8 | TAACTTACTTGCGGAGGTGT |
| 4487 | MMP8 | ATTCCATTGGGTCCATCAAA |
| 4488 | MMP8 | TGCAACACTCCAGAGTTCAA |
| 4489 | MMP8 | CTATACCCCACAGCTGTCAG |
| 4490 | MNX1 | CTACGGCTACTCCGCGGCGG |
| 4491 | MNX1 | GGCGGCGCTCTACGGCCACC |
| 4492 | MNX1 | CGAAGCGCTTGGGCCGCGAC |
| 4493 | MNX1 | CGTTACCTTGTTGGGCGCCC |
| 4494 | MNX1 | ATGGGGGGACTCTCAACAGT |
| 4495 | MNX1 | AGGACGACTCGCCGCCCCCG |
| 4496 | MOCOS | GTAGAGGAGCCGCACGATTA |
| 4497 | MOCOS | CCGTAGCCGTAGGCTAGCCG |
| 4498 | MOCOS | GGCGCGCGAGTTCAGCCGCC |
| 4499 | MOCOS | CTCTGAGCTACCGACTGCCT |
| 4500 | MOCOS | CAAGCTCACCCATGACACTG |
| 4501 | MOCOS | GCACCTGCTCCACAGTGTCA |
| 4502 | MORC2 | GCTTGGCCGACTTCCCAAAC |
| 4503 | MORC2 | ACACCTGAGTCTACTCAGAT |
| 4504 | MORC2 | GCCACACTCACGTGCCCTCT |
| 4505 | MORC2 | TCTGCCATCTGGATATCTCT |

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|---|---|---|
| 4506 | MORC2 | TGCCCAATCTGAGTAGACTC |
| 4507 | MORC2 | TTTGAGATTATGTCTAGTTC |
| 4508 | MPC2 | TGATGCTGCCCGAGAAATTG |
| 4509 | MPC2 | GCATCAGCTCCACTTTATCG |
| 4510 | MPC2 | AGACTTACCCATTTCATAAT |
| 4511 | MPC2 | AGCCCAGAAGAAAACTGTTC |
| 4512 | MPC2 | GTGTAGGGGTTGGTGTGTGC |
| 4513 | MPC2 | GCCTGCGGGCCACCTACCAC |
| 4514 | MPG | CGTAAATGATGTACACGTAC |
| 4515 | MPG | TGCAGAGCTCGCGGTCCTTG |
| 4516 | MPG | TTGCGTCTTGCTGCGAGCAC |
| 4517 | MPG | CCTAATGGCACAGAACTCCG |
| 4518 | MPG | CCACCTTACCCGACTGGGGT |
| 4519 | MPG | AAGCAGCGACCAGCTAGAGC |
| 4520 | MPND | CCCAGCATGCAGTAGCGGAC |
| 4521 | MPND | CGCCTCTCACCCGGGTGGGC |
| 4522 | MPND | TGCCACATGATCCTTCCGTC |
| 4523 | MPND | ACGTACCTCATCAGCAGCCG |
| 4524 | MPND | AGTCTGACCTGGCCAAGTCG |
| 4525 | MPND | TCTCAGCAGAGGACAAGAGT |
| 4526 | MPP5 | TTGAGCAAGATCTTGTGCGT |
| 4527 | MPP5 | TGCTACAGTTCGTAATGAAA |
| 4528 | MPP5 | ATCATTAGCCGGATAGTAAA |
| 4529 | MPP5 | GAGAATCTACCAAAGTATGT |
| 4530 | MPP5 | GCTGAATACTCCACATATTC |
| 4531 | MPP5 | TTTGAAGCCAGTTCATCATA |
| 4532 | MPP7 | TCATTAGTTTGTCGCCGATA |
| 4533 | MPP7 | GCACTGTCACGCCATAGTGC |
| 4534 | MPP7 | ACGAAGAAGTGACACCGTAT |
| 4535 | MPP7 | TTCATTCAGCCCTACTCCCA |
| 4536 | MPP7 | TCTTCCTGGCTATCCACATG |
| 4537 | MPP7 | TATAGGTCTGTATGAGCTGT |
| 4538 | MPPED2 | AGATGCAGACAAACCGCGTG |
| 4539 | MPPED2 | CAAAGGACCCCGTGGTTTAA |
| 4540 | MPPED2 | GGATGTCCCCATAAGGCATC |
| 4541 | MPPED2 | AAGCCCCATCCATTAAACCA |
| 4542 | MPPED2 | CGGCCCAAGCTCCATGTGTT |
| 4543 | MPPED2 | CATGGCAGACCTTGTTAAAC |
| 4544 | MRPL12 | CTTCGCCTCGGTCAGGCGGA |
| 4545 | MRPL12 | TCTGTGCCGTGCGACATATG |
| 4546 | MRPL12 | ATGTGTCCGTTCTTTCGCTA |
| 4547 | MRPL12 | GCTGCTCCTCATATGTCGCA |
| 4548 | MRPL12 | GTCGGGCTTGTGCCGATGGG |
| 4549 | MRPL12 | GGTGGGCGGCACCGTGGTTC |
| 4550 | MRPL40 | CTAGCCCTGCGCCCGACTAG |
| 4551 | MRPL40 | CAGGTTAGGATCCCGCTTGA |
| 4552 | MRPL40 | TCCGCACTCACCCGCTAGTC |
| 4553 | MRPL40 | AAGACAACAATGACGCTCGC |
| 4554 | MRPL40 | CAAGCAGCAAGAGCGTAAGA |

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|---|---|---|
| 4555 | MRPL40 | GAAAAGGAAGATCCGAAAAC |
| 4556 | MRPL49 | CGAGAGCGTCGTACAAAGTA |
| 4557 | MRPL49 | AGCGCCTGTTACCGGCTACC |
| 4558 | MRPL49 | GACAGGTACCCTACGGATCA |
| 4559 | MRPL49 | CTTACTTTGTACGACGCTCT |
| 4560 | MRPL49 | TCCATCCCCGCAGCGTAGCC |
| 4561 | MRPL49 | GAACATTATCCTACCCCTAG |
| 4562 | MRPS15 | CCGGACGACATATCCGCGCG |
| 4563 | MRPS15 | CCGCGCGCGGATATGTCGTC |
| 4564 | MRPS15 | GGTCATCATCCAGCCTAGAC |
| 4565 | MRPS15 | GTAGTCTTTGAGCAGCGTAG |
| 4566 | MRPS15 | CCGACCAACTTCGAGCCTCC |
| 4567 | MRPS15 | CGTGAAAAGACTCTTGTCTT |
| 4568 | MRPS30 | GGTGAAGAAATTATTCCTCG |
| 4569 | MRPS30 | AATATCCAAGCAACTCGCAG |
| 4570 | MRPS30 | TGGGTGTGACCGTAACAGCA |
| 4571 | MRPS30 | TCAGTGCCAAAGTATTTAGC |
| 4572 | MRPS30 | GGAGCACAAGCTATGTATCA |
| 4573 | MRPS30 | TCATACTGCCGTTTGAATAA |
| 4574 | MSC | CTCTGCCGACGAGTTGTCAC |
| 4575 | MSC | CCAACGCCCGTGAGCGTGCC |
| 4576 | MSC | TCCGCAGCCAACAGACTATG |
| 4577 | MSC | GGTGGTTCCACATAGTCTGT |
| 4578 | MSC | CTTTGCTCAGCACGCGCATC |
| 4579 | MSC | CAACGGGATGTCCACGGGCT |
| 4580 | MSH5 | TGTTGTTACGAGTGCCAAAC |
| 4581 | MSH5 | TGAGAATATGACTCGATTTC |
| 4582 | MSH5 | TCAGTGGCAGTCATGGCGTC |
| 4583 | MSH5 | AGCAAACAACGCCTCCTTTC |
| 4584 | MSH5 | CTCTCGTGGTCTGGGGCATC |
| 4585 | MSH5 | GGAGTCACTAGTATCATAGT |
| 4586 | MTA1 | CTCTGCCCGCCACGCACATC |
| 4587 | MTA1 | ATCGGGAGCTGTTCCTCTCC |
| 4588 | MTA1 | CAGCTGCGGCGCTCATGTGC |
| 4589 | MTA1 | ATCACCGACTTGTTAAAAGA |
| 4590 | MTA1 | GATAAAGGAGAGATTCGAGT |
| 4591 | MTA1 | GCTCTGTGGGCACCTTCGCA |
| 4592 | MTA2 | TTACCCTCTACTAGGCGATC |
| 4593 | MTA2 | GATCCCAGATCGCCTAGTAG |
| 4594 | MTA2 | GCTCCTCAATCCGTCTAACC |
| 4595 | MTA2 | TGTCCTGTACCGTATGTGGG |
| 4596 | MTA2 | ACGGATTGAGGAGCTCAACA |
| 4597 | MTA2 | CATTACCAGCCACCCACATA |
| 4598 | MTA3 | TCAATCTGTCGATCCGTAAG |
| 4599 | MTA3 | ACCGTGCTACAACTAAAAAC |
| 4600 | MTA3 | GGATACCTTCTTCTACTCAT |
| 4601 | MTA3 | GCAACCCATACCTAATAAGA |
| 4602 | MTA3 | AAAACACTATTAGCTGACAA |
| 4603 | MTA3 | GTTCTTCTATCCTTCTTATT |

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|---|---|---|
| 4604 | MTF1 | CCTTCGTGTGCACTCGCACG |
| 4605 | MTF1 | GCGGTACCAATGTACCTTTG |
| 4606 | MTF1 | AAATTTAGGTGCGATCACGA |
| 4607 | MTF1 | ACTCACGTTCGTACACATAC |
| 4608 | MTF1 | ACGTTTAACTGTGAATCTGA |
| 4609 | MTF1 | AAGCACATTCGAACTCATAC |
| 4610 | MTFR1 | GTTCGTCTCGAAGTATCGTA |
| 4611 | MTFR1 | ATACTTCGAGACGAACCATA |
| 4612 | MTFR1 | TCAGCTGAAGACCCCAGCGC |
| 4613 | MTFR1 | TGCCAAAATTGTGACCCAGC |
| 4614 | MTFR1 | GACTTAGATTCTACCACATT |
| 4615 | MTFR1 | GATCAACAGCAGATGTACTT |
| 4616 | MTHFD1 | CAGTCGATGACTATTGCCCC |
| 4617 | MTHFD1 | TTTCATTCCTTGTACGCCTA |
| 4618 | MTHFD1 | AAAGGGGAGTGGATCAAACC |
| 4619 | MTHFD1 | AGATTGACTAGCATCAATGC |
| 4620 | MTHFD1 | TCTTGGTAACTTAATGTGAG |
| 4621 | MTHFD1 | AAAGCTCACCTCAGATTCTG |
| 4622 | MTHFR | GCCGTCCTCCGACCCCATCG |
| 4623 | MTHFR | CGCCAGGGGCTCATCGTTCC |
| 4624 | MTHFR | TAGTTCGAGATGTTCCACCC |
| 4625 | MTHFR | GGAACATCTCGAACTATCTT |
| 4626 | MTHFR | CACTCACTTTGTGACCATTC |
| 4627 | MTHFR | ACTTGCTCTTCAGGTAGAAG |
| 4628 | MTMR8 | CTGAAGCCTCCACATAGATC |
| 4629 | MTMR8 | CCCTCCGCTGCAAGAATTTC |
| 4630 | MTMR8 | ATACGCCCAAAGTCTGATAT |
| 4631 | MTMR8 | CCACCCGGAAATTCTTGCAG |
| 4632 | MTMR8 | ATTGACCCAATATCAGACTT |
| 4633 | MTMR8 | TGCAACCCACCTGATCTATG |
| 4634 | MTOR | GAGGAGGTTCCGAAGATAGT |
| 4635 | MTOR | GCTGGGTGCTGACCGCAATG |
| 4636 | MTOR | AAAGGTGGCATCTTGGCCAT |
| 4637 | MTOR | AAGCACCTCTCGGAGTTCCA |
| 4638 | MTOR | GCTCCAGCACTATGTCACCA |
| 4639 | MTOR | CCAGCTCAGATGCCAATGAG |
| 4640 | MUC16 | AACACACTCGATGGCGACTC |
| 4641 | MUC16 | GGTGAACTCGTTACGGGCTC |
| 4642 | MUC16 | TGTCCCAGAAACCGTTGTGC |
| 4643 | MUC16 | ACTAATGAGGCTATCGTCTT |
| 4644 | MUC16 | ACTTCGCCTGCCAGTCCTAA |
| 4645 | MUC16 | CACCATAAAGATGTCAAGCC |
| 4646 | MUC17 | TCTGCGGCAAACACCGCCAC |
| 4647 | MUC17 | GACGGTTCAAGACGTCCCCT |
| 4648 | MUC17 | AGTCACACTGGACTCAATCG |
| 4649 | MUC17 | GCCTCCATTCTTGCAGCGAG |
| 4650 | MUC17 | TAACGTGCTGAGACAGCTGC |
| 4651 | MUC17 | CACACAACTCCCCATAATAG |
| 4652 | MUC2 | ACCAAAGTCTACTCCCGCGC |

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|---|---|---|
| 4653 | MUC2 | AACTTCGCCTCCGACTGCCG |
| 4654 | MUC2 | GAAGATCAACCAGCCCGATG |
| 4655 | MUC2 | CGGCCCCGTTAAGCACAGCC |
| 4656 | MUC2 | GGCCGTTGTAGTCCCCGCAG |
| 4657 | MUC2 | TCCGGGCCTCACCGTCAGAG |
| 4658 | MUC4 | CGTTCTTATACCACGTTCCA |
| 4659 | MUC4 | CACCTTCGGCCGCTACTGCG |
| 4660 | MUC4 | CTGGAAGACCACGTCGTTCC |
| 4661 | MUC4 | TGTCGGTTGCCTGGGACGCC |
| 4662 | MUC4 | AGTGCCGCCCATCCCCAGTC |
| 4663 | MUC4 | GCGAGTGGCACAACACCTTC |
| 4664 | MUM1L1 | AGTTACAGCCATCGGTTCCC |
| 4665 | MUM1L1 | CTCTGACTGTAGTCCTAATG |
| 4666 | MUM1L1 | GAGTTGTTCAAGGGAATGCG |
| 4667 | MUM1L1 | GAGACACATCCGTTTGAAAC |
| 4668 | MUM1L1 | AGAGAAAGATTAATGCGACT |
| 4669 | MUM1L1 | TTAGTGCCTCTAACCCTGTC |
| 4670 | MUT | GGAGCAAAAGTTATTGCTAC |
| 4671 | MUT | CCAACATCACCACGAACTCG |
| 4672 | MUT | ACGATGTGTCGCCAGATCAA |
| 4673 | MUT | GTACTCTAGAACTGGACTCC |
| 4674 | MUT | CTGGCCTATACTTTAGCAGA |
| 4675 | MUT | TCGTCTTCTTGTAGCAAAAA |
| 4676 | MUTYH | CTTGGTCGTACCAGCTTAGC |
| 4677 | MUTYH | ACTGTGATCAACTACTATAC |
| 4678 | MUTYH | CTGGACAGGCGGGCATATGC |
| 4679 | MUTYH | GCTGGTACGACCAAGAGAAA |
| 4680 | MUTYH | GCATGCTAAGAACAACAGTC |
| 4681 | MUTYH | TGGAGTCACCTGCATCCATC |
| 4682 | MX2 | CTCGCTCAGGAATCGTAACC |
| 4683 | MX2 | CATTCCCGGCCATGACGTTC |
| 4684 | MX2 | GTTGAACTTACCGCTGCCTC |
| 4685 | MX2 | GACAACCAGCCCCGAGACAT |
| 4686 | MX2 | TGTGGTGGCACTGTGCCGAA |
| 4687 | MX2 | GTTCCGGTAGCTGATCCTTC |
| 4688 | MXD3 | GCAGCGGGCCCGACAGCTCA |
| 4689 | MXD3 | CTGTGCCCGCATCGCAGTCC |
| 4690 | MXD3 | ACCGGGCACAGTCGGCCCCC |
| 4691 | MXD3 | CGCCCGCTGTCCTGCGCGCC |
| 4692 | MXD3 | GTCTGAGTCTGAGCGCTCAG |
| 4693 | MXD3 | ACAGGAGGGCCCAGTTGAAG |
| 4694 | MYB | CAAGTCTGGAAAGCGTCACT |
| 4695 | MYB | CTAACTTACCGGGAGATAAT |
| 4696 | MYB | CAGCATATATAGCAGTGACG |
| 4697 | MYB | GAAATCGCAAAGCTACTGCC |
| 4698 | MYB | GTACTTTCTGCCATCGGTGC |
| 4699 | MYB | TGTTATTGCCAAGCACTTAA |
| 4700 | MYC | AACGTTGAGGGGCATCGTCG |
| 4701 | MYC | GCCGTATTTCTACTGCGACG |

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|---|---|---|
| 4702 | MYC | TGCGTAGTTGTGCTGATGTG |
| 4703 | MYC | ACAACGTCTTGGAGCGCCAG |
| 4704 | MYC | CGCCGTCGTTGTCTCCCCGA |
| 4705 | MYC | TCGCTTACCAGAGTCGCTGC |
| 4706 | MYO15A | TACACCGTCCCCTATGCCGA |
| 4707 | MYO15A | TGGCGCGTCGTACGGCGCAT |
| 4708 | MYO15A | TCCGTTCAAATCTAATCTTG |
| 4709 | MYO15A | TCCGCAACCTGCCATCCATG |
| 4710 | MYO15A | TGTGGAGGACATGACACAGC |
| 4711 | MYO15A | TGGACAGCACAGTGGTTTCC |
| 4712 | MYO5C | GTGGTACGCACCTCGGTGAT |
| 4713 | MYO5C | GGACCCACACATATTTGCCG |
| 4714 | MYO5C | CCCGCAATGACAATAGTAGT |
| 4715 | MYO5C | GCCCATGTTCTGCCCGCTGT |
| 4716 | MYO5C | TGACTCCCCACTTACAATTA |
| 4717 | MYO5C | ACCGACTACTATTGTCATTG |
| 4718 | MYOG | AGCTCCGTCCGCTCGTAGCC |
| 4719 | MYOG | TAAGAGGAAGTCGGTGTCCG |
| 4720 | MYOG | GCCTTACTTACCCCCTGGGT |
| 4721 | MYOG | GCTGTGAGAGCTGCATTCGC |
| 4722 | MYOG | CACTGTGATGCTGTCCACGA |
| 4723 | MYOG | CCTTACAGATCATCTGCTCA |
| 4724 | MYRIP | CTCCTACCAGAAGCACGAAA |
| 4725 | MYRIP | CTGTCTAGGACATAGTGTGA |
| 4726 | MYRIP | GCTGCGTCTGCCAGCAAGCG |
| 4727 | MYRIP | CATCATCAGTCAAACCAGAC |
| 4728 | MYRIP | ACACCTTGGCTGTGGCCCTA |
| 4729 | MYRIP | TGAAACAGAGCATGTTCTTC |
| 4730 | MYSM1 | AGGCTAAATTTGGCCGAAGA |
| 4731 | MYSM1 | TGTGGATATCGAAGGGGACG |
| 4732 | MYSM1 | TCCCATCATGGCGGCTGAAG |
| 4733 | MYSM1 | ATCACTATCTTGATTCATCT |
| 4734 | MYSM1 | TCTTCACTTGTAAAACAGTG |
| 4735 | MYSM1 | GCGGCGGCGGGGGCACAGCC |
| 4736 | MZT2A | GGCGGAACGCAGCAACCACG |
| 4737 | MZT2A | TCCTAGGTGCTGCCCTGCGT |
| 4738 | MZT2A | GGCCTCGCGGATGGCGGCGC |
| 4739 | MZT2A | GGAGCTGTACGAGCTGGCTC |
| 4740 | MZT2A | GGACCTGCTGAAGCTGAACG |
| 4741 | MZT2A | CCAGCTCTGACCTCGGGTCT |
| 4742 | NAA10 | AGGCTGTGAAGCGTTCCCAC |
| 4743 | NAA10 | CGGTCTGGCTCAGAAACTGA |
| 4744 | NAA10 | TGCAGTGCTGCATGTTCATT |
| 4745 | NAA10 | CCAATGAGGTGATATGTCCA |
| 4746 | NAA10 | ATGAAATACTACTTCTACCA |
| 4747 | NAA10 | GACCCAGATGATGTGCCCCA |
| 4748 | NAA60 | AGTCGCGTACATCCTAAGTC |
| 4749 | NAA60 | TCCGCACAGAGTCTACCGCC |
| 4750 | NAA60 | GGTGGCCGCCGTTGATGTAG |

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|---|---|---|
| 4751 | NAA60 | TCACATATCAACCACCGCCC |
| 4752 | NAA60 | ATATCACGATACCATGAGTC |
| 4753 | NAA60 | TTGGAAGAGATGCCCGACCA |
| 4754 | NABP1 | GTCAACCGAATAATATCCCC |
| 4755 | NABP1 | GATATTATTCGGTTGACCAG |
| 4756 | NABP1 | TTCTGCTGTCCTCGATAATC |
| 4757 | NABP1 | TACAGGTACATTTGGACCAG |
| 4758 | NABP1 | TGTACCCATATTACTATTCA |
| 4759 | NABP1 | GAACCCAACCCAGATTATCG |
| 4760 | NAE1 | TCAAGGAGCAGAAGTACGAC |
| 4761 | NAE1 | ATGGACTAGTTGGTTATATG |
| 4762 | NAE1 | AGGCGCGGCCATGGCGCAGC |
| 4763 | NAE1 | TCATCCAGATAATGCATTAG |
| 4764 | NAE1 | TACGCTTAGCAGATGTCCTC |
| 4765 | NAE1 | AGATCCTCTAATGCATTATC |
| 4766 | NAP1L1 | CTATCAGCCTCTATTTGATA |
| 4767 | NAP1L1 | CACCAACAGGATACATTGAA |
| 4768 | NAP1L1 | AGCATTACCTTATCAAATAG |
| 4769 | NAP1L1 | CATTCACATTCTTCTTCCGT |
| 4770 | NAP1L1 | TACCTTTCAATGTATCCTGT |
| 4771 | NAP1L1 | TAATGCAATTTATGAACCTA |
| 4772 | NAP1L2 | CTCAATCGCAGTTCCCCTAT |
| 4773 | NAP1L2 | ACACGGTACTTAACTTTCAC |
| 4774 | NAP1L2 | ACTGCGATTGAGTATTCCAC |
| 4775 | NAP1L2 | AAAAGGTGGCGATACTGATG |
| 4776 | NAP1L2 | ACATAACCGATAAGTCCTTT |
| 4777 | NAP1L2 | GCTTAACTTTAATATCTGTC |
| 4778 | NAP1L3 | TGAAACCGCCTATCATACAG |
| 4779 | NAP1L3 | CCCGTTGGGAACAAATTTCG |
| 4780 | NAP1L3 | TCTCGGAACCTGTCGCCCAT |
| 4781 | NAP1L3 | GCTAGCTCGACTAGTGATTC |
| 4782 | NAP1L3 | CGAGCTAGCCATCTCCTCTT |
| 4783 | NAP1L3 | CAGTAGCAGTTGTGCGACTC |
| 4784 | NAP1L4 | CACTTACGTTTCGATGTAGC |
| 4785 | NAP1L4 | GATGCAGAATCCTCGAGTTC |
| 4786 | NAP1L4 | CCGTCACAGTCCACAATCTC |
| 4787 | NAP1L4 | TGAGTTGGTAAAGTAGTCGT |
| 4788 | NAP1L4 | GCTAAAAATGCAAGTAACAC |
| 4789 | NAP1L4 | TGTAAAGCTGCCAGAACTCG |
| 4790 | NAP1L5 | ACTCGGCATTTCACCGAATT |
| 4791 | NAP1L5 | GCTCTTGGATCTTGGCGAGT |
| 4792 | NAP1L5 | CTCCTCTAACATGGCCGACT |
| 4793 | NAP1L5 | TGCACACCCCTCCATCTCGC |
| 4794 | NAP1L5 | GGCGTGGGCATCGTCATGTT |
| 4795 | NAP1L5 | GGTGACCCTGACAGCGCGGC |
| 4796 | NASP | ACAAAAGACTAGCTGCTTCC |
| 4797 | NASP | AATCACTTCTGGAGTTGGCA |
| 4798 | NASP | CTTTGTAGAGGTAAGAAGTA |
| 4799 | NASP | AGCAGCTGTCAATGCATTCC |

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|---|---|---|
| 4800 | NASP | TGATTCAGTCCTTGAAAACA |
| 4801 | NASP | AGAAACTGAAGGCTCAGAAG |
| 4802 | NAT9 | GTAAGACAGCATCGCGAGAA |
| 4803 | NAT9 | GTTCTCGCGATGCTGTCTTA |
| 4804 | NAT9 | CATGACCTCGATCTCCCCCA |
| 4805 | NAT9 | AGATCTAGAAGACCTCACCT |
| 4806 | NAT9 | CTGCGAGGAGTGACCACGCT |
| 4807 | NAT9 | CCTCTGATTTCATCCACTCG |
| 4808 | NBEAL1 | AAGTGTCCAACCACAGCTTC |
| 4809 | NBEAL1 | CTTGACAAGCAAAATTGACA |
| 4810 | NBEAL1 | AGGGTAGATGATATGCCTCC |
| 4811 | NBEAL1 | ACTTTGAAAAGCTGCCTACC |
| 4812 | NBEAL1 | TCACAGAAATCTATCAAATG |
| 4813 | NBEAL1 | CTGAATATAGAGTGTTGTCA |
| 4814 | NBN | ACGCCAGTCAAAAGTCTGTA |
| 4815 | NBN | CCTCTTGATGAACCATCTAT |
| 4816 | NBN | CATCCCCCGACTTCAAAGTT |
| 4817 | NBN | CAGTTAACACAGCATGATTT |
| 4818 | NBN | AGTAAAAATGTTGATCTGTC |
| 4819 | NBN | TTAAAAGATAATTCTAAGTA |
| 4820 | NBPF1 | TCGCGTAACTTCCCATTCAC |
| 4821 | NBPF1 | ACCGCGCTCGCTCAGAAGCT |
| 4822 | NBPF1 | TGATGTAGAAACTTCCCCAT |
| 4823 | NBPF1 | GCACACAGTGCTTAAGCTCC |
| 4824 | NBPF1 | GCTCATCAGGGAGATGCCGA |
| 4825 | NBPF1 | ATCCTCCCATTCAACATGAG |
| 4826 | NCAM2 | TTGCTTGTCAGTAGCGGGCA |
| 4827 | NCAM2 | TACTGACAAGCAACCCCAGC |
| 4828 | NCAM2 | CAAGCTTTCCTCCAAGTCTT |
| 4829 | NCAM2 | GCAATACAGAACTCACTGTC |
| 4830 | NCAM2 | TATTGATGTTGAGAATCTGC |
| 4831 | NCAM2 | AACATCAATAAAAGTGATGA |
| 4832 | NCBP2 | CAATACGGCCGTGGGCGATC |
| 4833 | NCBP2 | AGTCGCTGCGCAGCGCCTTC |
| 4834 | NCBP2 | AGTACCGGGACCAGCACTTC |
| 4835 | NCBP2 | CCCAGTCTGTGCGAATGATT |
| 4836 | NCBP2 | TAAAGGTTCGGGATGAGTAT |
| 4837 | NCBP2 | CAGGACTACGATGCTGGGAG |
| 4838 | NCKAP5 | TGGCCCCCTCACTTGTTCTT |
| 4839 | NCKAP5 | GCATCTGCTGACTCAGCTTG |
| 4840 | NCKAP5 | TGAGAAGCTGATACATGAAC |
| 4841 | NCKAP5 | TACGTCTTCAAAGCGAGAAG |
| 4842 | NCKAP5 | AGTTGCCCAAAGAACAAGTG |
| 4843 | NCKAP5 | AGCAACACAGGAGTCTCTGG |
| 4844 | NCOA4 | TAGCTGTCCCTTTCAGCGAA |
| 4845 | NCOA4 | GATTAACAGAAGTCAGCATC |
| 4846 | NCOA4 | CAGTTGAATCTTCAGGCTTA |
| 4847 | NCOA4 | CTGTATCTCCATGCCAGAGC |
| 4848 | NCOA4 | GTGCATCACTACACCTCAAA |

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|---|---|---|
| 4849 | NCOA4 | GCATGAGCCATCAAGTGCTC |
| 4850 | NDRG2 | GATCCTTACCTACCACGATG |
| 4851 | NDRG2 | GGTAAGGATCGCTGGGCGTT |
| 4852 | NDRG2 | GTTAGCTGCCCGAATCCTCC |
| 4853 | NDRG2 | CCAGCCACTGTTTCAGTTCG |
| 4854 | NDRG2 | ATGTCCTCGAACTGAAACAG |
| 4855 | NDRG2 | CCTCTCACTTTAGGTACTGC |
| 4856 | NEB | TTTATGAGACTACGACAACA |
| 4857 | NEB | TTACGAAGAGGTGCCGGGAG |
| 4858 | NEB | TTTCTGACTGTGTGCAATGT |
| 4859 | NEB | ACAGTACTACACAGAAGAAG |
| 4860 | NEB | GGCAGATGACGAAGACTATG |
| 4861 | NEB | TTGAAGGATCCACTTTCTTC |
| 4862 | NEIL3 | ATGGAGAGAAGATTCGCGCG |
| 4863 | NEIL3 | CAGAGCGCTTCCCCGCACGC |
| 4864 | NEIL3 | TTACAGTGGCGTGGAAACTT |
| 4865 | NEIL3 | TTATCTTACCGTAAAGCTTT |
| 4866 | NEIL3 | TTGACTCATCAGTAGAACTC |
| 4867 | NEIL3 | CTTGAGTATAAATATAAAAA |
| 4868 | NEK11 | TGGAGTTTCTCGACTTCTAA |
| 4869 | NEK11 | TTCATTTCAGGGCCGAGATC |
| 4870 | NEK11 | CCGACTTTGTGTCATAGCCT |
| 4871 | NEK11 | GAGTTGACTACATGCATGAG |
| 4872 | NEK11 | CTTGCTCCACAAAACTTGCA |
| 4873 | NEK11 | TGATCTCAGAAAGGTACTTA |
| 4874 | NEK2 | ACATCGTTCGTTACTATGAT |
| 4875 | NEK2 | TTTCAGATCCCGATGCAATA |
| 4876 | NEK2 | TGGTCATACCGTATTGCATC |
| 4877 | NEK2 | CTGTCTCTGGCAAGTAATCC |
| 4878 | NEK2 | ATATTGTGAAGGAGGGGATC |
| 4879 | NEK2 | CTGGATTACTTGCCAGAGAC |
| 4880 | NELFB | GCAGCTCATCGAATACCGAC |
| 4881 | NELFB | AGTGCACATTCCGCGTGCGC |
| 4882 | NELFB | GCTGTATCGAGCCTGCGCCG |
| 4883 | NELFB | AGCCTTCCCCTCCGAAGCGA |
| 4884 | NELFB | GAACGTGAAGCTGTACGACA |
| 4885 | NELFB | ACTCCTGAAGCAGTACATCC |
| 4886 | NELFCD | ATCTGAAAACTACACCGCTG |
| 4887 | NELFCD | CCATCTTCAACACTCTGAAG |
| 4888 | NELFCD | CTGTGAACCTGCTGGCCGAG |
| 4889 | NELFCD | TTCAGGTGTTGAGCCAGTGC |
| 4890 | NELFCD | CTGCAAATCTAACTTCATCA |
| 4891 | NELFCD | ACAGTTTCCTGAACCTGCAC |
| 4892 | NELFE | CAAGCGTTCTCGAACCCTTG |
| 4893 | NELFE | AGCAGATCAGGCCGTTGCTG |
| 4894 | NELFE | CACAGCGTTTGACACCACCT |
| 4895 | NELFE | CTCAGCCTTGATGGCACTGA |
| 4896 | NELFE | AGTCATCCAGACGTCCCCAG |
| 4897 | NELFE | TCTCATACAGAGATTTCCTC |

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|---|---|---|
| 4898 | NF1 | TCTTTAGTCGCATTTCTACC |
| 4899 | NF1 | ACACTGGAAAAATGTCTTGC |
| 4900 | NF1 | TTTCTTCACACCTGTCGTGA |
| 4901 | NF1 | AGTCAGTACTGAGCACAACA |
| 4902 | NF1 | GTTGTGCTCAGTACTGACTT |
| 4903 | NF1 | TCTCTCTCAGTTGATTATAT |
| 4904 | NFE2 | TGTCCCGGACTAGCGCTAGC |
| 4905 | NFE2 | GAGAAGCCGCTCCCGTTCAT |
| 4906 | NFE2 | ACTCACCTGCAGCTCGGTGA |
| 4907 | NFE2 | CATGTCCATCACCGAGCTGC |
| 4908 | NFE2 | CCGACGACGGGGCAAAAACA |
| 4909 | NFE2 | GATAATCCTGAGTCGGATTC |
| 4910 | NFE2L2 | TAGTTGTAACTGAGCGAAAA |
| 4911 | NFE2L2 | TGCATACCGTCTAAATCAAC |
| 4912 | NFE2L2 | TATTTGACTTCAGTCAGCGA |
| 4913 | NFE2L2 | TGATTTAGACGGTATGCAAC |
| 4914 | NFE2L2 | ACAGCTCATCATGATGGACT |
| 4915 | NFE2L2 | CCCGTTTGTAGATGACAATG |
| 4916 | NFKBIZ | GGGCCCGATTCGTTGTCTGA |
| 4917 | NFKBIZ | TCTGTGGAGAATACTGGTAC |
| 4918 | NFKBIZ | AGGTCCATCAGACAACGAAT |
| 4919 | NFKBIZ | CTTTACCCGAACACCTTGAA |
| 4920 | NFKBIZ | CCAATGAACACCACACAGTT |
| 4921 | NFKBIZ | AGCCCCATATGGGGGTTGGC |
| 4922 | NFRKB | AGACGGACACTTTAACCCCG |
| 4923 | NFRKB | GAAGGGCGGGGCCACTCCGC |
| 4924 | NFRKB | GTCCGCCACTCCCGCTCCTC |
| 4925 | NFRKB | GTGACTTGAAGCATAACTGC |
| 4926 | NFRKB | ACAAACCTCGGAAAAGCTTC |
| 4927 | NFRKB | ATGTTGTCAGCCTCTCAACA |
| 4928 | NFX1 | CTGTGAATTGGTTCGTGTCA |
| 4929 | NFX1 | AATTGACCTGCTTGAGATGC |
| 4930 | NFX1 | GCAAGGTAAAGAATCCTGAG |
| 4931 | NFX1 | AATGAAATTCCACATAGCTG |
| 4932 | NFX1 | ATGACAAAAACATGTGAATG |
| 4933 | NFX1 | TCTTTCAGTCTCTGCCATCC |
| 4934 | NHEJ1 | TGAGCAGCGTCCTTCAACAA |
| 4935 | NHEJ1 | AGTGGGGCTACGCTGATTCG |
| 4936 | NHEJ1 | CCTAGAGATCCAAGACTACC |
| 4937 | NHEJ1 | CATGCTAGCTAGTCCTTCCC |
| 4938 | NHEJ1 | ATCCTGCAGATTCATGACAA |
| 4939 | NHEJ1 | CTTGATGCTTCTGTCCCACT |
| 4940 | NHLH1 | CTCGCGTGGCGTGGGCCGTG |
| 4941 | NHLH1 | CACGCGAGAACGCATCCGCG |
| 4942 | NHLH1 | GAGTTCAGACGTCCAGCACG |
| 4943 | NHLH1 | ACTTGGCTGTGGCGCGGCGC |
| 4944 | NHLH1 | CTCCTACCTGAACCACGTGC |
| 4945 | NHLH1 | CGCCACAGCCAAGTACCGCA |
| 4946 | NKTR | GGTTGATCTCGATGTCGAAG |

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|---|---|---|
| 4947 | NKTR | CTCGGTCGCGATGGGGGCGC |
| 4948 | NKTR | ACTTACCTGAGCACAAGCAA |
| 4949 | NKTR | AACTTCCTTTGCTTGTGCTC |
| 4950 | NKTR | GGTTAAAAACTTTATGATTC |
| 4951 | NKTR | GGGAAGAAGTTATGTTATAA |
| 4952 | NKX2-5 | CTACGCGCCTGCCTACGGCG |
| 4953 | NKX2-5 | CGCGCCGCCGTAACCCGGAT |
| 4954 | NKX2-5 | AAATGCTGAGTGAGACGTGT |
| 4955 | NKX2-5 | GCTGTAGGCACGTGGATAGA |
| 4956 | NKX2-5 | AGTCAAAGACATCCTAAACC |
| 4957 | NKX2-5 | CTCAGCATTTGTAGAAAGTC |
| 4958 | NKX2-8 | GTTCGCGACGGGCAGCCGTG |
| 4959 | NKX2-8 | TGCCCGTCGCGAACAAGCAC |
| 4960 | NKX2-8 | ACGCGCAACACCTGCCGAGG |
| 4961 | NKX2-8 | CCTTCTAGATTTACCCGAGC |
| 4962 | NKX2-8 | GCCCGCCAGACTCGTCGCAG |
| 4963 | NKX2-8 | GTCCGCTAGGCCCGCGTCTC |
| 4964 | NLRP5 | TGAAATCGAGAATGCCAACG |
| 4965 | NLRP5 | CATCCCGTGCCTTCTCCGAG |
| 4966 | NLRP5 | TGGTCAGTCATCGTTGCTTC |
| 4967 | NLRP5 | GAAGCAACGATGACTGACCA |
| 4968 | NLRP5 | GCTGCAGAGACAAAAGAACA |
| 4969 | NLRP5 | TTCTTCTGTCTCTGCTGCTG |
| 4970 | NMD3 | ATACAGAACGATGGAGTATA |
| 4971 | NMD3 | GTCGCACTCACATGTGTCCA |
| 4972 | NMD3 | TTCAGTGTACAGTTCCCTGT |
| 4973 | NMD3 | TGTAATTGTATGTGTTACTA |
| 4974 | NMD3 | AAGAAAAGTACCTTGCATAT |
| 4975 | NMD3 | AAAACAACATGCTCAGAAGA |
| 4976 | NME1 | ATCTGGTTTGATCGCAATGA |
| 4977 | NME1 | TTCATTGCGATCAAACCAGA |
| 4978 | NME1 | CAAAGAATGGACGGTCCTTC |
| 4979 | NME1 | CCACCCAGGAACATTATACA |
| 4980 | NME1 | GGCTTCCGAAGATCTTCTCA |
| 4981 | NME1 | AAGACGGGCCGAGTCATGCT |
| 4982 | NME3 | CTGCGTGAACGCCCGTTCTA |
| 4983 | NME3 | GAACGGGCGTTCACGCAGCT |
| 4984 | NME3 | GAAGGTGCGTTCGTGTGCGC |
| 4985 | NME3 | CCCGCCGCGAGATCGCTCTC |
| 4986 | NME3 | CCGAGTCGCTGCCGTGAATC |
| 4987 | NME3 | TGGACGTGGTGCGCACCTCG |
| 4988 | NME4 | ACAATGTCGTCCGCGCCTCG |
| 4989 | NME4 | GAGCCGCCGTTGCACGCCAT |
| 4990 | NME4 | CATGATTGGACACACCGACT |
| 4991 | NME4 | CAGAGCTCATGTAGCGGATG |
| 4992 | NME4 | TGCTCGGCAAGGACGCTCTC |
| 4993 | NME4 | CATCCACGCCAGCGACTCCG |
| 4994 | NME8 | AACTTATAGAAAACATGACC |
| 4995 | NME8 | AAAACGAGAAGTCCAGTTAC |

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|---|---|---|
| 4996 | NME8 | GCAAAGACAAGTAGTATTAT |
| 4997 | NME8 | ACAACACTAAAGAGAAAAAC |
| 4998 | NME8 | AGAAGCACAAGCACTGTGCA |
| 4999 | NME8 | AGATGAAGACTTCAAAATAC |
| 5000 | NOD2 | GATCACCCAAGGCTTCAGCC |
| 5001 | NOD2 | TTCAACAACAAATTGACTGA |
| 5002 | NOD2 | TGGGTGATCACCAGAGCTTG |
| 5003 | NOD2 | CAATGAGCTTGCAGATGCCT |
| 5004 | NOD2 | AGAAGTTCTGCCTGCATGCA |
| 5005 | NOD2 | GATAACAATATCTCAGACCG |
| 5006 | NOL12 | GCGGAAGGTCGAGCGAAAGA |
| 5007 | NOL12 | TTCGCTCGACCTTCCGCTTG |
| 5008 | NOL12 | CGTGACCACCATCAGTGACC |
| 5009 | NOL12 | CCAGCATCTTCAAGTATTCC |
| 5010 | NOL12 | CCGTCTTTGCTGTCACCAAC |
| 5011 | NOL12 | AGACTCACCGCTGAGAGAGC |
| 5012 | NOS1 | ACCGAGTCTTCAATGACCTA |
| 5013 | NOS1 | GACATCATTCTTGCGGTCAA |
| 5014 | NOS1 | CGTCTCTTCAAGCGCAAAGT |
| 5015 | NOS1 | CTCGGTCGTTCTCCACGCCG |
| 5016 | NOS1 | CCTCCACCTTAAGAGCACAT |
| 5017 | NOS1 | CAAGTGTCCACGCTTCCTCA |
| 5018 | NPC1L1 | CTTCATCAATGTGACCCGCG |
| 5019 | NPC1L1 | AGGTCGCCACGTCGTCACCT |
| 5020 | NPC1L1 | ACATGCCAGCCATCCGACGC |
| 5021 | NPC1L1 | AAATGCGAGCCTTCCAGCGT |
| 5022 | NPC1L1 | CGTAGTCAGCCATGCAGCTC |
| 5023 | NPC1L1 | TAGTGCCCCGCTCACCTTCA |
| 5024 | NPEPL1 | AGCCACGCAGACCATCGCCT |
| 5025 | NPEPL1 | GCTGCAGCTTCCCGCGGACG |
| 5026 | NPEPL1 | CTTCAGAGCCGCAATCAAGC |
| 5027 | NPEPL1 | CCGCAGTCTCGCTTCATCCC |
| 5028 | NPEPL1 | CGGCAGGAAGATGGCGAACG |
| 5029 | NPEPL1 | TCGTCTTCAGTTCCTCATCC |
| 5030 | NPFFR2 | AAGCTGCGACAGATATTCCC |
| 5031 | NPFFR2 | GCCAACTAGTAAATCACTTA |
| 5032 | NPFFR2 | ATAAAACCAGTCCAGTCTAC |
| 5033 | NPFFR2 | CATTAAGATGCTCCTGATTG |
| 5034 | NPFFR2 | ATGAAGATTGCTGCCACTTG |
| 5035 | NPFFR2 | AACACGATGTGCAAGATCAG |
| 5036 | NPM1 | ATTTACAGGTTGTGAACTAA |
| 5037 | NPM1 | GTACCGTTCTTAAAGATAAC |
| 5038 | NPM1 | ACAAGAATCCTTCAAGAAAC |
| 5039 | NPM1 | GGAACCTTGCTACCACCTCC |
| 5040 | NPM1 | TGCAGAGTCAGAAGATGAAG |
| 5041 | NPM1 | TGATGACGATGATGATGAAG |
| 5042 | NPM2 | ACCCCGCTCAGATTTGCTTG |
| 5043 | NPM2 | CTGACTTACCATAACGTTCC |
| 5044 | NPM2 | TAGCCACGCTCGCCTGCTTC |

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|---|---|---|
| 5045 | NPM2 | CAAAGAGGAGATGCATCGCG |
| 5046 | NPM2 | TGAGGATGCAGATATATCTC |
| 5047 | NPM2 | AGAAAGCTGCACTCCTACCA |
| 5048 | NPM3 | TACCACATTACACTCGTCTT |
| 5049 | NPM3 | GGCCCGGAACCATGACCATC |
| 5050 | NPM3 | GGATGATGCGGAGCACGTGC |
| 5051 | NPM3 | CCGTAGGCCCCCGACACCCC |
| 5052 | NPM3 | GGGCCTACGGGTCCCGGCCC |
| 5053 | NPM3 | ATCCTCTTCCTCTACCTTAA |
| 5054 | NPNT | TTCGATCTCATGTATATTGG |
| 5055 | NPNT | GCCATACTGACAGTTTGCCA |
| 5056 | NPNT | GTTCATGCACCTGTGCTTAC |
| 5057 | NPNT | AGCCCCGGCCCTGTAAGCAC |
| 5058 | NPNT | GAGCCTCCTGCCCTAGATTT |
| 5059 | NPNT | TATGGCTGTGATGTTGTTAA |
| 5060 | NPR2 | AGAAGCGCATTGAGCTGACC |
| 5061 | NPR2 | GTCACTGAATACTGTCCTCG |
| 5062 | NPR2 | TGTCTTAGGTGTAACTGGGC |
| 5063 | NPR2 | AACCATCTCACTCGCTTCAT |
| 5064 | NPR2 | TGAGTTCAAACAGAACCTGC |
| 5065 | NPR2 | CCTGAAAGTCCCCAGAATCC |
| 5066 | NPR3 | CATGTAGAGCCAAGACGTAG |
| 5067 | NPR3 | GTGCGAGCAGTGACACCATC |
| 5068 | NPR3 | TGCCATCCTCCTCTACGTCT |
| 5069 | NPR3 | GCATCATGCTGGTGGCGCAC |
| 5070 | NPR3 | TCCTCAGTAGAGTGACTGTC |
| 5071 | NPR3 | TCCAGACAGTCACTCTACTG |
| 5072 | NPW | GGGACGCTGTCAGAACGGTC |
| 5073 | NPW | CACGTGCTTGTACCACGCGC |
| 5074 | NPW | GGATCCCCGTCCGTGCGCCC |
| 5075 | NPW | TTTGCTGCGGGGTCCACCGC |
| 5076 | NPW | TGCGTCGCTCACCCTATCTG |
| 5077 | NPW | GACCCCGCAGCAAACCGCCT |
| 5078 | NRAS | TACAAAACAAGCCCACGAAC |
| 5079 | NRAS | GAATGGAATCCCGTAACTCT |
| 5080 | NRAS | TTGTATGGGATTGCCATGTG |
| 5081 | NRAS | CCATGAGAGACCAATACATG |
| 5082 | NRAS | CTTCGCCTGTCCTCATGTAT |
| 5083 | NRAS | ATTCATCTACAAAGTGGTTC |
| 5084 | NSA2 | TCTCAGCATGACGCTGTTTA |
| 5085 | NSA2 | GAATGATGAAAAGACACCAC |
| 5086 | NSA2 | TGAAGTAAATGTGAGCGAAT |
| 5087 | NSA2 | ATCCCCACTGTATACAACTT |
| 5088 | NSA2 | AAAGTGTGCTTTGTTGGAGA |
| 5089 | NSA2 | GAAGAAGGCATGGAAGAGAA |
| 5090 | NSUN5 | GCAGCTTCTTCTCCGCACGG |
| 5091 | NSUN5 | CAGCGCCGGCCTCCTCCGTG |
| 5092 | NSUN5 | GAAATAATCAACTACATCAT |
| 5093 | NSUN5 | GTTGATTATTTCAAGAGACA |

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|---|---|---|
| 5094 | NSUN5 | CGATGACTTACGAGCCCTCA |
| 5095 | NSUN5 | CTACCCTGTCCTGCAGAATG |
| 5096 | NT5C | AAGCCGCGGCGTTGCTCCAG |
| 5097 | NT5C | GCGAGCAGTACCGCGCCCTG |
| 5098 | NT5C | ATAATTCGTTCTACGAACTG |
| 5099 | NT5C | GCGGGAGATGAACGACCTAC |
| 5100 | NT5C | GCCCGGGGCTTCGTACACAC |
| 5101 | NT5C | TTCTACACAGTACCGCTGGG |
| 5102 | NT5C3A | TCACACTTACTATGACATGT |
| 5103 | NT5C3A | TATCATTGACAACTGTAAGC |
| 5104 | NT5C3A | AGGAGGAGCTGCCAAACTTC |
| 5105 | NT5C3A | ATAATTTCTTCTACTCTTGT |
| 5106 | NT5C3A | TACAGATGAATGTAGAAAAA |
| 5107 | NT5C3A | AGAGTAGAAGAAATTATCTG |
| 5108 | NUDT11 | ACGTTCTGTGCTTGCGATCC |
| 5109 | NUDT11 | GTGCTTCCGGAGCGAACGCG |
| 5110 | NUDT11 | CCTCGTCCTCGCGTTCGCTC |
| 5111 | NUDT11 | CCGCTTCTTCGTACACCTCT |
| 5112 | NUDT11 | GTACGAAGAAGCGGGAGTCA |
| 5113 | NUDT11 | AGTGCAAACCCAACCAGACG |
| 5114 | NUDT21 | CCAGCCGGTCTGCGAGCGAT |
| 5115 | NUDT21 | CCGCCCAATCGCTCGCAGAC |
| 5116 | NUDT21 | AAAAGAGCCCCTCTACGAGA |
| 5117 | NUDT21 | TTCTGATTGTACATGAGCAC |
| 5118 | NUDT21 | CCTGGTGGTGAACTTAACCC |
| 5119 | NUDT21 | ACTAAAACGCTTAATGACAG |
| 5120 | NUDT5 | GAAACAGTTCCGACCACCAA |
| 5121 | NUDT5 | CCATTCTGAGAAGATTCCGT |
| 5122 | NUDT5 | AATCAGTGAAACGTACAACC |
| 5123 | NUDT5 | GCTTGAAAAAACAACGTACA |
| 5124 | NUDT5 | ATCCGCAGTCTGCTCTTTCC |
| 5125 | NUDT5 | TCTATGCAGTAGCCCCCCAT |
| 5126 | NUDT9 | ACCAGTCCAGTCCGTCCTGC |
| 5127 | NUDT9 | AACGTCATGTCTGGTTCTAA |
| 5128 | NUDT9 | GTGGCAAGACTATAAGCCTG |
| 5129 | NUDT9 | TGGTTCTTACCTGGTTATAA |
| 5130 | NUDT9 | TTCTCCCAAGTTTAACGAAA |
| 5131 | NUDT9 | AGATTGAAAATGGAAGACCG |
| 5132 | NUF2 | TAGATCATGTGCAAGACTTC |
| 5133 | NUF2 | ATTCGCAATAAGATCTTAAC |
| 5134 | NUF2 | AATCTCAGCTACATTATATC |
| 5135 | NUF2 | TGAGTAACTAAATTGCTGAA |
| 5136 | NUF2 | AGAGCCTTACAAATAGTATA |
| 5137 | NUF2 | AAGAAGCCTTCCATTAAATG |
| 5138 | NYX | CGGCACGTCGGTGACACGTC |
| 5139 | NYX | CAACCTGTTCCGCCGCGTGC |
| 5140 | NYX | ACTGGGTGGATGAAAGGCCG |
| 5141 | NYX | ATGTTGGTCCTGCTTCTGCA |
| 5142 | NYX | CGGTCTCCATCGACCTGGAC |

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|---|---|---|
| 5143 | NYX | CTCGGTGCGCTGCGACCGCG |
| 5144 | OAZ2 | CACCCACTGTCGAAGATCCC |
| 5145 | OAZ2 | GATGTTCATGGTTTATCCCC |
| 5146 | OAZ2 | TACTGGAAGTGGACGATGTG |
| 5147 | OAZ2 | CTATGACTATTAGTCCTCAT |
| 5148 | OAZ2 | CATCGTCCACTTCCAGTATG |
| 5149 | OAZ2 | GGATCTTCGACAGTGGGTGA |
| 5150 | OGG1 | GTGTACTAGCGGATCAAGTA |
| 5151 | OGG1 | CGCACGGCCTCCAGCTCGTC |
| 5152 | OGG1 | GCTACGAGAGTCCTCATATG |
| 5153 | OGG1 | GGGCACTGGCACTCACGTAA |
| 5154 | OGG1 | TGAGCCGAGGTCCAAAAGCC |
| 5155 | OGG1 | GGCCATCAAATGCATTGCCA |
| 5156 | OIP5 | AGTTACAAATAACGTCGTTT |
| 5157 | OIP5 | CCCTTCCTAGTTGGCATTGA |
| 5158 | OIP5 | CATCTCTGATGCATTTACTA |
| 5159 | OIP5 | CATAGTAAATGCATCAGAGA |
| 5160 | OIP5 | CTGCCTTTCCAGTGACAAAA |
| 5161 | OIP5 | GTATTCTACCCATGCTGCCC |
| 5162 | OIT3 | ACTCACGACCACAGTAGACG |
| 5163 | OIT3 | GCACAATGCCGTCGCCTTCT |
| 5164 | OIT3 | AGCGAGTGCACATGCGCTCC |
| 5165 | OIT3 | TGGAGCGCATGTGCACTCGC |
| 5166 | OIT3 | AGACTCACCCACGGGTGACA |
| 5167 | OIT3 | CTCACCTGCCTCTTCATCAC |
| 5168 | OPRD1 | GCACACGGCCGAGTAGAGCG |
| 5169 | OPRD1 | CGCCATCACCGCGCTCTACT |
| 5170 | OPRD1 | GGACTTCCGCACGCCTGCCA |
| 5171 | OPRD1 | ACCGCCTGCACCCCGTCCGA |
| 5172 | OPRD1 | GCTGCACCTGTGCATCGCGC |
| 5173 | OPRD1 | AGGCGTTGGCGTGCCCATCA |
| 5174 | OR12D2 | TCCATGAAGCTCTCTAACGC |
| 5175 | OR12D2 | GTCCATGTTGTTCGCCGTGA |
| 5176 | OR12D2 | CCGTAGAGTAACAGATATCC |
| 5177 | OR12D2 | GGAACACTGAGCTTAATCAG |
| 5178 | OR12D2 | TGTCACGGGGACAATTGCCA |
| 5179 | OR12D2 | ACCAATGACCCAGATTGTGA |
| 5180 | OR2H2 | CATTTGGGGAACACAACTCG |
| 5181 | OR2H2 | GGTTAACCAAAGCTCCACAC |
| 5182 | OR2H2 | TTAACTCTGCAAAAGGGCGG |
| 5183 | OR2H2 | ACCTGCCCTTCTGCCCCGAT |
| 5184 | OR2H2 | CACCTCCTACAATGAGATCC |
| 5185 | OR2H2 | TAATGGCTCCGTAAGAGACA |
| 5186 | OR4C6 | GTGTGCTGCCTAATGGTAGG |
| 5187 | OR4C6 | GAGGGTGTCTACAATCACCT |
| 5188 | OR4C6 | TATCTTAATTGCGTCCTACA |
| 5189 | OR4C6 | CCCAAGCCCCTCCTACCATT |
| 5190 | OR4C6 | CTCATCTGTCGTTGCCCCCA |
| 5191 | OR4C6 | CTCTTAGTTACCCTCAACAG |

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|---|---|---|
| 5192 | OR4K2 | GACCACAGAATGGTAACGTG |
| 5193 | OR4K2 | TGCTTCTGTCATTAGTCCCC |
| 5194 | OR4K2 | AGTTATGCATTCAATGAGTC |
| 5195 | OR4K2 | CACTTGTTGAGATCATAAAG |
| 5196 | OR4K2 | AATGATGCTTCACAGTAACC |
| 5197 | OR4K2 | ATGCATAACTCCCATAATCC |
| 5198 | OR8H2 | TATAGACTCCTTTGTCAACG |
| 5199 | OR8H2 | GGTGTTGTATGTATCAGTGC |
| 5200 | OR8H2 | CTGGGCAAAGCAGCCCGTAA |
| 5201 | OR8H2 | ACATTCAGCAGTACCCAAGA |
| 5202 | OR8H2 | CAGAAAGTGTCAGTCCCATA |
| 5203 | OR8H2 | AACCAACAATAATGAATATC |
| 5204 | ORC4 | CAATGACAAAATCGCCCTAA |
| 5205 | ORC4 | AATCACAAGGCAGTTAAATC |
| 5206 | ORC4 | AATTCATTAAGTGTATCTGC |
| 5207 | ORC4 | TTCTCAGCAAAAACCTTGTC |
| 5208 | ORC4 | TGAAAACCTTTCATTTCTTC |
| 5209 | ORC4 | AAGCTTCCAGAAGAAATGAA |
| 5210 | ORC6 | CGGCCTCTCCGCACGCACCA |
| 5211 | ORC6 | TCTCCGTGGTGCGTGCGGAG |
| 5212 | ORC6 | AACAAAATGGTAGCCACATC |
| 5213 | ORC6 | TACAGCTAAACTGTACAGCT |
| 5214 | ORC6 | CAAGATCCACTTGCTGTGTC |
| 5215 | ORC6 | TGTAAACAACTAGAGAAGAT |
| 5216 | ORMDL1 | ATACCCGTGTCATGAACAGC |
| 5217 | ORMDL1 | ATCCGAACACCATGTAGTTG |
| 5218 | ORMDL1 | AAGCAAGGCTCCTAACTCAT |
| 5219 | ORMDL1 | ACCTTTCGAAACTCCTGACC |
| 5220 | ORMDL1 | TTTGTTAAAGTCCAAGCAAC |
| 5221 | ORMDL1 | GTGTTTAGGATGAAGTGAGT |
| 5222 | OSGEP | ATGCAATGCAGTCGATATCC |
| 5223 | OSGEP | CGACTGCATTGCATACACCA |
| 5224 | OSGEP | TGTAGGTAATGTGAGGCTAC |
| 5225 | OSGEP | GTGATTCTGGGGTTACACAG |
| 5226 | OSGEP | AGATGTTTCGGGCTGGACAC |
| 5227 | OSGEP | TCCATCCCCTTTACAGTGTA |
| 5228 | OSM | AAAGAGTACCGCGTGCTCCT |
| 5229 | OSM | GCCGCCATGCTCGCCATGCT |
| 5230 | OSM | CTTGCGCTGAAAAGCATCCG |
| 5231 | OSM | GGCCGAACATCCTCGGGCTC |
| 5232 | OSM | TGGGGGTACTGCTCACACAG |
| 5233 | OSM | CCACTGAGTGCATGAAGCGA |
| 5234 | OTOA | GTACCTTCTGGACGCCAGCC |
| 5235 | OTOA | CTGCATCCGACAAAGAACCC |
| 5236 | OTOA | TCTTTGTCGGATGCAGTTGT |
| 5237 | OTOA | GGTGGCTGCACTTGATCATC |
| 5238 | OTOA | GAGGGATTCCAGTTGGCTGT |
| 5239 | OTOA | GATGGCTCCGTGCACAGCCT |
| 5240 | OTUD7A | CGACTATGAGCAGCTCCGCC |

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|---|---|---|
| 5241 | OTUD7A | CTGTGTGCACGAGCTGTAAA |
| 5242 | OTUD7A | ATTTCAGGAGCTTCATCGAG |
| 5243 | OTUD7A | AGACCTGAGCGTGTACAGCG |
| 5244 | OTUD7A | GGGTCGCTCCACCTTGTGCC |
| 5245 | OTUD7A | TTTACAGCTCGTGCACACAG |
| 5246 | OXLD1 | ACTTGCCGAGCCACGGACCG |
| 5247 | OXLD1 | ATTCGGGACAGACCACGTAG |
| 5248 | OXLD1 | TGGTGCCGTCCGCACCTGCT |
| 5249 | OXLD1 | AGCCGCCGCGGTCCGTGGCT |
| 5250 | OXLD1 | CCCGGAGCGCAAGCCCCTGA |
| 5251 | OXLD1 | GGCTCCCAAGCAGGTGCGGA |
| 5252 | PADI4 | TGGTAGCACAGGCGACCAGA |
| 5253 | PADI4 | GTCACTTACCCACCCCGGTG |
| 5254 | PADI4 | GCAATATCCACGACCACCCC |
| 5255 | PADI4 | CTAGCCCGACGATGGCCCAG |
| 5256 | PADI4 | AAAGCTCTACTCTACCTCAC |
| 5257 | PADI4 | TGACTCAGCTTGACATCTGC |
| 5258 | PAF1 | ACCTACCGCATCGACCCCAA |
| 5259 | PAF1 | ACACACCATTGGGGTCGATG |
| 5260 | PAF1 | AGTAAACCCCGTCACCCTCT |
| 5261 | PAF1 | CGGGGTTTACTACAATGAGT |
| 5262 | PAF1 | ACCCACTCACCTCTTGGAGC |
| 5263 | PAF1 | TCCAGCTGATGAGAAACTTT |
| 5264 | PAK1 | TATTCCTGCAGTTACCTCGT |
| 5265 | PAK1 | GAAAAACCCGCAGGCTGTTC |
| 5266 | PAK1 | CAGAAATACATGAGCTTTAC |
| 5267 | PAK1 | AATTGCAGCTGTGTGCCGTG |
| 5268 | PAK1 | TGCTGTCACAGGGGAGTTTA |
| 5269 | PAK1 | TTACAATTCTTCTAATGCCT |
| 5270 | PAK2 | AGTAATCGAGCCCACTGTTC |
| 5271 | PAK2 | GTTAGGGCATGCCAGAACAG |
| 5272 | PAK2 | TTTGAGCACACCATCCATGT |
| 5273 | PAK2 | ATGGTGTGCTCAAAATCAGA |
| 5274 | PAK2 | CTTACTGCTGGTGTTCCAGA |
| 5275 | PAK2 | GAGAAAGATGGCTTTCCTTC |
| 5276 | PAK3 | CTTTGAGCATACGATTCATG |
| 5277 | PAK3 | AGTAATCGTGCCCATTGCTC |
| 5278 | PAK3 | ATCGTATGCTCAAAGTCTGA |
| 5279 | PAK3 | AGAACATCTAGAACAGCTTG |
| 5280 | PAK3 | ATACATAGCAGCCCATCCTT |
| 5281 | PAK3 | TTTGCAGATAAAAGTGCACA |
| 5282 | PAK4 | GGCGATGCACACGATGCCCG |
| 5283 | PAK4 | GGCCCTTTAACACCTACCCG |
| 5284 | PAK4 | TGCTCATGGGATACTCGCTG |
| 5285 | PAK4 | ACCTTTGCTGCCCCGCACGA |
| 5286 | PAK4 | CTGCACAGGTGGTAATCATG |
| 5287 | PAK4 | TCTCCACCACATTCTCGTGC |
| 5288 | PAK6 | CGCCCCCCACGGGCACCAAT |
| 5289 | PAK6 | CTACCAGCACTTCAACGTGG |

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|---|---|---|
| 5290 | PAK6 | CTGGTATCCGAAGTGGTCAG |
| 5291 | PAK6 | TTCGGAATAGCCTGCGCTTC |
| 5292 | PAK6 | CAGCGGGATCCCCCCGCACC |
| 5293 | PAK6 | CAGACATCGTCTCCCAAGTC |
| 5294 | PAM16 | CCACTAGGTGGTCCGCGCAA |
| 5295 | PAM16 | GAGCCGAGCAGTCACGTATG |
| 5296 | PAM16 | ACCGGTGTCCAGCGCGTCCT |
| 5297 | PAM16 | GCACGCCCATCACAATGATC |
| 5298 | PAM16 | ACCTGCAAACTCCTGCCGCA |
| 5299 | PAM16 | CGGGCCGCAGCTGATGCCCG |
| 5300 | PANK1 | ATTGGTGTATTTCGAGCCGA |
| 5301 | PANK1 | CGGGGCTTTCAAATTCGAAG |
| 5302 | PANK1 | GGAGGAGACTATGAACGATT |
| 5303 | PANK1 | GGCCTATGTTGCTTGCTGAC |
| 5304 | PANK1 | CAGAGCTTTCAGTTGTCCTT |
| 5305 | PANK1 | GAAGCTGCTGGCATATGCCA |
| 5306 | PARD6G | GCTGCAATCGTAGAATCGCA |
| 5307 | PARD6G | ACCTGGTCCCCGAGACGCAC |
| 5308 | PARD6G | GGGAGTCTAGAGCGTGACCG |
| 5309 | PARD6G | AGTTTGGGGCGGAATTCCGA |
| 5310 | PARD6G | ATTCTACGATTGCAGCGCAG |
| 5311 | PARD6G | TCTCTGGACCGTCATAAGCC |
| 5312 | PARP6 | ATATGGAACTATCGATGACG |
| 5313 | PARP6 | AGGACATCAAAGGCCAGTTC |
| 5314 | PARP6 | CGAGGAAGCTGATGTTGATG |
| 5315 | PARP6 | AGTCGTCATCATTCCAGAAC |
| 5316 | PARP6 | GGAGGGAGATAATGAATCAG |
| 5317 | PBRM1 | TAATACCATCCGAGACTATA |
| 5318 | PBRM1 | CAAACTCATTTCTTGTTCGA |
| 5319 | PBRM1 | GAAACCACTTCATAATAGTC |
| 5320 | PBRM1 | ATAAAGCCGCTTGCAAACTC |
| 5321 | PBRM1 | CAATGCAAAGTCCTATTATA |
| 5322 | PBRM1 | CCTGTTCATCCTTATAGTCT |
| 5323 | PBX4 | CGCATGGTCGGCGCCATTCA |
| 5324 | PBX4 | CATCGAGCAGCCGCGAACGC |
| 5325 | PBX4 | GCATTGAGCACTCTGACTAC |
| 5326 | PBX4 | TATCTAGTGGTAAGCATCCG |
| 5327 | PBX4 | AGCATGCTCTGAATTGCCAT |
| 5328 | PBX4 | GGGCGGCCTCACCATCTCCC |
| 5329 | PCBP4 | GCGAGACTGTAAAGCGAATC |
| 5330 | PCBP4 | CTCTCGGATCTCCTTGATCT |
| 5331 | PCBP4 | ATGACAAGGCGCAGGGTCAC |
| 5332 | PCBP4 | CAGGAAGTGGGCAGCATCAT |
| 5333 | PCBP4 | AATCAGTGAGCCACACTGAC |
| 5334 | PCBP4 | CTTTGTGCTGCTCCTGCAAA |
| 5335 | PCNA | CGAAGATAACGCGGATACCT |
| 5336 | PCNA | TGCTTCAAATACTAGCGCCA |
| 5337 | PCNA | ATACGTGCAAATTCACCAGA |
| 5338 | PCNA | CATAGTCTGAAACTTTCTCC |

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|---|---|---|
| 5339 | PCNA | GACAAGTAATGTCGATAAAG |
| 5340 | PCNA | AGTGTCACCGTTGAAGAGAG |
| 5341 | PCSK5 | GTAGACGCGCGTCCGACACA |
| 5342 | PCSK5 | GTTGATGAATCCGTACTTGC |
| 5343 | PCSK5 | AGGTCAGTTATCTCGAGCAG |
| 5344 | PCSK5 | GCTTACCATATACCACATGC |
| 5345 | PCSK5 | AGAAGTGGTAGTAGTCCTTC |
| 5346 | PCSK5 | CCTATTTCAATGATCCCAAG |
| 5347 | PDCD5 | CAGTATCTTAGCCCAAGTTC |
| 5348 | PDCD5 | TTCTCCTAGGTATCAGAACA |
| 5349 | PDCD5 | AAGATGCTTACACCTGGCCC |
| 5350 | PDCD5 | TTTCCAGGATCCTGGTGATG |
| 5351 | PDCD5 | ACCTGTGCTTTGCTTCCTGT |
| 5352 | PDCD5 | CATATCTTGCCATCTGTATA |
| 5353 | PDCL | CAAGGGGCCCCAATTCAAGC |
| 5354 | PDCL | CACCCCCCTTATAGATCAGC |
| 5355 | PDCL | CACCCTTGATGATAAGTTGC |
| 5356 | PDCL | GAAGGCATCTCAGTTAACAC |
| 5357 | PDCL | CAGTCATTGATCACACCTTT |
| 5358 | PDCL | AGAAGCTGTCAATGACTTGC |
| 5359 | PDE2A | TACCCCTCGTTCCCTGCCCG |
| 5360 | PDE2A | CACCATGGACGTGTCATCCT |
| 5361 | PDE2A | CTCCTCCAGGTTCACCGACG |
| 5362 | PDE2A | AAAGAACCTCTTCACCCACC |
| 5363 | PDE2A | GAAACTCAAGTGTGAGTGCC |
| 5364 | PDE2A | ACTCACCCAGGTGGGTGAAG |
| 5365 | PDE4B | GAGTTTCTCGACATCGCCTT |
| 5366 | PDE4B | CGACTATGACTTGTCACCAA |
| 5367 | PDE4B | ACAGTTGTAATAGCAATGCT |
| 5368 | PDE4B | TGCTATTACAACTGTAAGCC |
| 5369 | PDE4B | CCTCTATAATGAAGAAAAGC |
| 5370 | PDE4B | GGCGTGAAGTACCAGCCCAG |
| 5371 | PDE6G | ACTCAGCCTTGGGCGGTTCC |
| 5372 | PDE6G | AATTTAAGCAGCGACAGACC |
| 5373 | PDE6G | AGGTTTGGGGACGACATCCC |
| 5374 | PDE6G | CGTGCTAGATGATGCCATAT |
| 5375 | PDE6G | ACATCACAGTCATCTGCCCT |
| 5376 | PDE6G | GTTCCCAGGCCTTCCATTCC |
| 5377 | PDGFB | GAGTCGGCATGAATCGCTGC |
| 5378 | PDGFB | CCTCGGCGCTGACCAGACGC |
| 5379 | PDGFB | GGTCATGTTCAGGTCCAACT |
| 5380 | PDGFB | GCAGGGGGACCCCATTCCCG |
| 5381 | PDGFB | GATCTCCAACGCCTGCTGCA |
| 5382 | PDGFB | AACATGACCCGCTCCCACTC |
| 5383 | PDGFD | CTTTGCGCAACGCCAACCTC |
| 5384 | PDGFD | GTCTCTTACCATCTCGCCTG |
| 5385 | PDGFD | CAAGTCCGATGACTACTTTG |
| 5386 | PDGFD | CGTAGCCGTTTCCTTTCACC |
| 5387 | PDGFD | GACATGGCGGCTTCACTCTC |

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|---|---|---|
| 5388 | PDGFD | ACACCATCGTCCTCTAATAA |
| 5389 | PDGFRA | AAAGCCCTGTCTGCTGTCGT |
| 5390 | PDGFRA | TCGGGATCAGTTGTGCGACA |
| 5391 | PDGFRA | CTTAAAACCGTGTATAAGTC |
| 5392 | PDGFRA | GACCTTCAATGGACTTACCC |
| 5393 | PDGFRA | AGCTATGGGGACTTCCCATC |
| 5394 | PDGFRA | GTCTTAGGCTGTCTTCTCAC |
| 5395 | PDGFRB | GTAGAGCCGTTTCCGCTCAT |
| 5396 | PDGFRB | GGTCCCCGAGTCTTCTAACT |
| 5397 | PDGFRB | ATGAGGTGGTCAACTTCGAG |
| 5398 | PDGFRB | TGGAGACCGATGAGCGGAAA |
| 5399 | PDGFRB | CACACTCTCCGTCACATTGC |
| 5400 | PDGFRB | ACCCTCATGTGCATTGTGAT |
| 5401 | PDGFRL | GTGGAGCTACCCTGCGTATC |
| 5402 | PDGFRL | ACTGTAGAGCTTCGATGTAA |
| 5403 | PDGFRL | TCTGCTGGTGCACGAAGCGC |
| 5404 | PDGFRL | GCAACCTCATTCCGAGCACC |
| 5405 | PDGFRL | CGATGTTGTCTACTTGAACC |
| 5406 | PDGFRL | GTCAAGCAGAATGAGCGCTA |
| 5407 | PDHA1 | TGTGCGTCCGAGAGGCAACA |
| 5408 | PDHA1 | GATGCAGACTGTACGCCGAA |
| 5409 | PDHA1 | TACCTTCCCAGATCTACAAT |
| 5410 | PDHA1 | AGGATGGGCTCAAATACTAC |
| 5411 | PDHA1 | ACTCTCACTCTCTTAAAACC |
| 5412 | PDHA1 | TGATGCTACATTTGAAATTA |
| 5413 | PDHA2 | ATGTAATGACGTGATCCGAG |
| 5414 | PDHA2 | CGTGTACGATAACTGACTCC |
| 5415 | PDHA2 | CAATGGCATCGTCGGTGCAC |
| 5416 | PDHA2 | GATGCTGACTGTTCGCCGCA |
| 5417 | PDHA2 | ACGGACTTAAACTTGATCCA |
| 5418 | PDHA2 | CCTCAACACGCGGGAGATGA |
| 5419 | PDHB | ACCTGGATTGTTATCCCGAA |
| 5420 | PDHB | CCTTGTATGCCCCATCATAC |
| 5421 | PDHB | AAGGCCACCAGACATGTAGT |
| 5422 | PDHB | GACTGACCACCTTTAAGCCT |
| 5423 | PDHB | TGGCAGCTGAGTTTATAACC |
| 5424 | PDHB | AGTTCGTGATGCTATAAATC |
| 5425 | PDIA2 | GGGGGATCTGTCGCGCTTCC |
| 5426 | PDIA2 | GGCTGTTGAACTCCGTGACC |
| 5427 | PDIA2 | TTGCGGAAGAACTTGAGCGT |
| 5428 | PDIA2 | ACGCTCAAGTTCTTCCGCAA |
| 5429 | PDIA2 | GATCGGTGGCCGGGACCTAG |
| 5430 | PDIA2 | CCGCGGCTCTTTCAGCAGTT |
| 5431 | PDIK1L | TAAGATCTCGGTGGATGATC |
| 5432 | PDIK1L | TCCCGTATTAGATCGTACTT |
| 5433 | PDIK1L | AACTAGCCCTTCGTGAGTTC |
| 5434 | PDIK1L | CCAGAAGCGCCTATTATTTG |
| 5435 | PDIK1L | ACACAACACCGTAACTACCT |
| 5436 | PDIK1L | AGCCAAAGTACGATCTAATA |

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|---|---|---|
| 5437 | PDK1 | CCGTTCAATTGGTACAAAGC |
| 5438 | PDK1 | GGTGTCCTGAGAAGATTATC |
| 5439 | PDK1 | CCATCTCATCGAAAACACAT |
| 5440 | PDK1 | ACTTCAAGTACATTGCAGTT |
| 5441 | PDK1 | TAGATGGCTATGAAAATGCT |
| 5442 | PDK1 | TAGTTCTTCAAGTTCTAGTT |
| 5443 | PDLIM7 | TGTGACTTCAAGATCGACGC |
| 5444 | PDLIM7 | GGATGCGGAAGGAACGCGAC |
| 5445 | PDLIM7 | GGTTCAGAGCAAACCGCAGA |
| 5446 | PDLIM7 | TCTCACCGCACAGACGAAGC |
| 5447 | PDLIM7 | CAGACAGCCGCTCCGACCGC |
| 5448 | PDLIM7 | CAAAGCGGCGCAGGCCGGAG |
| 5449 | PECAM1 | GCTCTAACTAATGAGTTCCG |
| 5450 | PECAM1 | CTCACTAAAGCAACGACTGT |
| 5451 | PECAM1 | TACAGAGTATCTGCTTTCCA |
| 5452 | PECAM1 | TCAGTCGTGCTGCATAAGTA |
| 5453 | PECAM1 | TTGTCGCTACAGAGAACGGA |
| 5454 | PECAM1 | GTATATGACCTACCTTCCTC |
| 5455 | PELI3 | TCACCCCGTTGGCGTGCGAC |
| 5456 | PELI3 | TAGCGACACAGACATGTTCC |
| 5457 | PELI3 | GTGCATCACCAGGACTCCAT |
| 5458 | PELI3 | TCAGTGCCAGGCGGCTTCGC |
| 5459 | PELI3 | CCCAGGAGCGAGCGGCCAAA |
| 5460 | PELI3 | TATACTCCACTATGACCGAG |
| 5461 | PEPD | TCCCCAGCGTGGCGTCAACA |
| 5462 | PEPD | TCACTTGCTGATGCCGTCAA |
| 5463 | PEPD | AGCCACTTACCAAAGTGAGG |
| 5464 | PEPD | GCGAACATGGCGGCGGCCAC |
| 5465 | PEPD | GCCCTCTGTCCTCCTCACTT |
| 5466 | PEPD | CAGCGGCAGTGTCTGCAGGG |
| 5467 | PEX12 | GCCCACTGTGTCGTAAAACC |
| 5468 | PEX12 | GCTAGGTCGACTGACAGTTC |
| 5469 | PEX12 | GAGACCCGCTCTTCAGCATG |
| 5470 | PEX12 | CTCTGTAAAATCGTTTCCAG |
| 5471 | PEX12 | ATCAGATGTTGTACTTCTGT |
| 5472 | PEX12 | CTTGACCACATGCTGAAGAG |
| 5473 | PFKL | ACTTACCAGGATCCGGTCGA |
| 5474 | PFKL | GACGCGCATGGGCATTTATG |
| 5475 | PFKL | GGACGCCCTCTGCCTTCGAC |
| 5476 | PFKL | TTGGCCTTACCTCGTAGATG |
| 5477 | PFKL | TGTTCTCACCTCCCTCCACG |
| 5478 | PFKL | CGTCTCCAACATCATCCAGC |
| 5479 | PFKM | TTCAGTCTCGCCAGTTAGTC |
| 5480 | PFKM | ATGAAACTCGTCTTTATGCA |
| 5481 | PFKM | CTTGAAGAGTCTAGATACTA |
| 5482 | PFKM | GAGGATCTTACCCACAGTGG |
| 5483 | PFKM | TGGCTTTGGTATGAGCATGC |
| 5484 | PFKM | GACATTTGTGTTAGAAGTAA |
| 5485 | PFKP | GAACGCTGCCGTCCGTGCCG |

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| 5486 | PFKP | GTAGATACCCATGCGCACCA |
| 5487 | PFKP | TCCCAGGGCGGGACGATCAT |
| 5488 | PFKP | CGTCCCCGCCGATCACACAC |
| 5489 | PFKP | CGGAGGCTCAAACATCGCAG |
| 5490 | PFKP | CCCCTAGGGCTACCAGGGCA |
| 5491 | PGF | CGTGTCCGAGTACCCCAGCG |
| 5492 | PGF | AGCACGTTCGCTGCGAATGC |
| 5493 | PGF | CAGCTCCTAAAGATCCGTTC |
| 5494 | PGF | GACGGCCAATGTCACCATGC |
| 5495 | PGF | CGAGCCGTTCCCAGCAGACA |
| 5496 | PGF | TAGCAGTGGGCCTTGTCTGC |
| 5497 | PGK1 | GCTCATAAGGACTACCGACT |
| 5498 | PGK1 | GCACACCATCAGGCCGGCCT |
| 5499 | PGK1 | ACCTCTGGTTGTTTGTTATC |
| 5500 | PGK1 | CAGGGATGTTCTGTTCTTGA |
| 5501 | PGK1 | GACATAGACATCCCCTAGCT |
| 5502 | PGK1 | CTTCTTCCTCCACATGAAAG |
| 5503 | PGK2 | ACACCGCGCTCATAGTTCCA |
| 5504 | PGK2 | CAAGTTTGACGAGAACGCTC |
| 5505 | PGK2 | AATCTGCCCCATAAAGCATC |
| 5506 | PGK2 | CATGATATCTTTAACGATCT |
| 5507 | PGK2 | TGCATCACTGTTATAGGGGG |
| 5508 | PGK2 | CTCAAGCAAGGCTAATTGTT |
| 5509 | PGM1 | CTTCTCCTAGATCGGTCGCT |
| 5510 | PGM1 | ATCCGTATTGATGCTATGCA |
| 5511 | PGM1 | CCTGACCTGAAAGTAGACCT |
| 5512 | PGM1 | CTCCATGCATAGCATCAATA |
| 5513 | PGM1 | CTGACAGCCAGTCACAACCC |
| 5514 | PGM1 | CTTCAATTGTCTTGCTGATT |
| 5515 | PGM2 | TCGCCTAGACCGCTGCCTTC |
| 5516 | PGM2 | GCGGTCTAGGCGAGGACGCC |
| 5517 | PGM2 | CTCTAGGTCTATTGGGATAA |
| 5518 | PGM2 | ATCATTTCTCCTCACGATAA |
| 5519 | PGM2 | GACCATCATCCAGACTACAC |
| 5520 | PGM2 | GTGAAACGACTAATAGCAGA |
| 5521 | PGRMC2 | GGTTGCGGGAGCCGTCGTAC |
| 5522 | PGRMC2 | GAGCAGCTGCGCCAGTACGA |
| 5523 | PGRMC2 | ATCCTGTTTATTGTGATCCT |
| 5524 | PGRMC2 | AAATGTGGCCAGTCCTCTGG |
| 5525 | PGRMC2 | GCTGGTAGGGATGCCTCCAG |
| 5526 | PGRMC2 | TCTTCATCTGTATATTCTGA |
| 5527 | PHACTR2 | GGTCAGCTCCAACGCTGACG |
| 5528 | PHACTR2 | CCCGTCCGAGTCAGAGTCAT |
| 5529 | PHACTR2 | AAACTCGAACAGACTGTCCC |
| 5530 | PHACTR2 | TATCTTGTACACCGATGATG |
| 5531 | PHACTR2 | CTTTGGCAAGTAAAATACGC |
| 5532 | PHACTR2 | TGATAGCAAGAGTATCCCTC |
| 5533 | PHGDH | TGGACGAAGGCGCCCTGCTC |
| 5534 | PHGDH | GGCTGCACTGGACGTGTTTA |

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|---|---|---|
| 5535 | PHGDH | TGGTGGCAGAGCGAACAATA |
| 5536 | PHGDH | GCTTCTGCCAGACCAATCCA |
| 5537 | PHGDH | TTGGGAGAGAGGTAGCTACC |
| 5538 | PHGDH | GCTCACCCTGTGTTATCACC |
| 5539 | PHLDB2 | CCTGACAGTCGCTTATCTAC |
| 5540 | PHLDB2 | CCAGTAGATAAGCGACTGTC |
| 5541 | PHLDB2 | AGTCATTCTGAACAACCTCG |
| 5542 | PHLDB2 | TGTTCTTCACTTATACCCTC |
| 5543 | PHLDB2 | GGATATGGAATGTGCTCTTT |
| 5544 | PHLDB2 | GAACTGGAAAAGAACATTGT |
| 5545 | PHOX2B | AGGTCCTTACCTGCGGCGTA |
| 5546 | PHOX2B | GCTTCCAGTATAACCCGATA |
| 5547 | PHOX2B | ACCTCCATCCCGGATTCGCT |
| 5548 | PHOX2B | CGAAGATAGGACGCTGGCGA |
| 5549 | PHOX2B | GCTGCTTGCGCTTCTCGTTG |
| 5550 | PHOX2B | CTCCTCCCGAGTGTAGATGT |
| 5551 | PI15 | TTACGTCAAACTACCTGTAC |
| 5552 | PI15 | GTGGCGACGTGCAGTTTACT |
| 5553 | PI15 | CAAAATCTATCTGTACGCAC |
| 5554 | PI15 | CAGTGCGTACAGATAGATTT |
| 5555 | PI15 | AATTGCGCATCCTATCCGAT |
| 5556 | PI15 | CATGTGCACACATTATACGC |
| 5557 | PIAS1 | ACGCAAGATGGCGGACAGTG |
| 5558 | PIAS1 | CTTAAAGCTCTAGAATGATC |
| 5559 | PIAS1 | CCTCTGAAGAAGAACTGTTG |
| 5560 | PIAS1 | CTGATTTGCTGCACTTGTTG |
| 5561 | PIAS1 | TGTCAAGGCAAATGCAAAAC |
| 5562 | PIAS1 | CCTCAACAGTTCTTCTTCAG |
| 5563 | PICALM | TGATATACCAGACCTTTCAC |
| 5564 | PICALM | TGGTCTATCTCTGACCAAAG |
| 5565 | PICALM | GGCACGTTTGAAAGCTTTAA |
| 5566 | PICALM | CAGCAAGTTGGAATTGACAG |
| 5567 | PICALM | ACCAATTATTCAGAATCAGA |
| 5568 | PICALM | TCCATCTGATTCTGAATAAT |
| 5569 | PIF1 | TCTCGTCAATGACCAACCGC |
| 5570 | PIF1 | ATATCTGCTAAAGCGAATCC |
| 5571 | PIF1 | GGTCATTGACGAGATCTCAA |
| 5572 | PIF1 | GTGCTGAGGGCCGTCCTGAA |
| 5573 | PIF1 | GGTGGTGCCCCCGATGTGGC |
| 5574 | PIF1 | GGGATCCAGCTCATCATCTG |
| 5575 | PIGO | CCAACACAACCCGCGAAAAT |
| 5576 | PIGO | CACCACCATGCAGCGCCTCA |
| 5577 | PIGO | GGCCAAGAAACTTAGCCAGA |
| 5578 | PIGO | AGGAAGGCGTGTAGTCTTCA |
| 5579 | PIGO | ACCAGGGAAAAGGTCTTTCC |
| 5580 | PIGO | CGTGCTGATTGCTCACTTCC |
| 5581 | PIH1D1 | GCTGTTGACAGCTACGTCGT |
| 5582 | PIH1D1 | TCCTCCCGCCGACGTGACCG |
| 5583 | PIH1D1 | AGCTCGTGATCACCATCGCC |

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|---|---|---|
| 5584 | PIH1D1 | TCGATTCTGGTCTGGTTGTC |
| 5585 | PIH1D1 | CCCAGAACAGCGATTTCTTG |
| 5586 | PIH1D1 | CTGTCAACAGCGACTTCTAC |
| 5587 | PIK3C2A | CCATCACACGTAAAAGTAAC |
| 5588 | PIK3C2A | ACCAATCACCGCACAAACCC |
| 5589 | PIK3C2A | TTTGAAGAGCCAGTTCTACT |
| 5590 | PIK3C2A | TTATCACAACCAAGTAGAAC |
| 5591 | PIK3C2A | TGTCCCCCTAAAAGTCACAA |
| 5592 | PIK3C2A | GACAGCATTAGAACTGAAGA |
| 5593 | PIK3CA | TACACAGACACTCTAGTATC |
| 5594 | PIK3CA | GAAGATTTGCTGAACCCTAT |
| 5595 | PIK3CA | GCTTCAGCAATTACTTGTTC |
| 5596 | PIK3CA | CGAGCAGCACGAGGAAGATC |
| 5597 | PIK3CA | TGTTATAGGGCAAATAATAG |
| 5598 | PIK3CA | TTACCTCTTTAGCACCCTTT |
| 5599 | PIK3CB | CTTCCCGAGGTACCTCCAAC |
| 5600 | PIK3CB | AATCCACCGCCCAGATGTCA |
| 5601 | PIK3CB | GTGACAAGAAGTTGTGACCC |
| 5602 | PIK3CB | CTTGTCACTAATTTGAGAAC |
| 5603 | PIK3CB | GATTATGTGTTGCAAGTCAG |
| 5604 | PIK3CB | CATACCTGGAACTGAATTAG |
| 5605 | PIK3CD | GCGCGAAAGTCGTTCACTTC |
| 5606 | PIK3CD | GCCGGAAGACTACACGCTGC |
| 5607 | PIK3CD | GTCCACCAAGGACGTGCCGC |
| 5608 | PIK3CD | CGGCCGCCTCCTCGCAGAAT |
| 5609 | PIK3CD | CAGAGCTACCTTTGCCGATG |
| 5610 | PIK3CD | GAGGGGTCAACCCACTGTGC |
| 5611 | PIK3CG | TTGGGTAAAGTCGTGCAGCA |
| 5612 | PIK3CG | AAGTATGACGTCAGTTCCCA |
| 5613 | PIK3CG | GCCAGATTTCTGCTGAAGCG |
| 5614 | PIK3CG | TTTAGAGTTCCATATGATCC |
| 5615 | PIK3CG | ATATGGAACTCTAAAGCTTT |
| 5616 | PIK3CG | ACCACGCTTCAGCAGAAATC |
| 5617 | PIK3R1 | AGCGTAAGCCAATACTGATG |
| 5618 | PIK3R1 | AATGATCGATGTGCACGTTT |
| 5619 | PIK3R1 | CGCTTTCAAACGCTATCTCC |
| 5620 | PIK3R1 | TCCAGTATCCAAATACCAAC |
| 5621 | PIK3R1 | CTAGCATACCTCATCAGTAT |
| 5622 | PIK3R1 | ACTGAGCTAGAGATTCATTC |
| 5623 | PIK3R2 | GCGCTCTGTACCCGTTCCGC |
| 5624 | PIK3R2 | CCCACTGATCCACGTCGCTC |
| 5625 | PIK3R2 | GCTGCCGTGTGCGCTCGTTG |
| 5626 | PIK3R2 | AGACTGGTCCCTGAGCGACG |
| 5627 | PIK3R2 | GCAGTTCTCCCCACCTGATG |
| 5628 | PIK3R2 | GAACTTACCTGTCCTTTCAA |
| 5629 | PIK3R3 | TATTGAGCGATTTCGCAGAG |
| 5630 | PIK3R3 | GGCAGATGGCTCAATCACAA |
| 5631 | PIK3R3 | GGTACTGGGGGGATATTTCA |
| 5632 | PIK3R3 | GAACTGTCCTTCATTCCATT |

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|---|---|---|
| 5633 | PIK3R3 | TAATTCCCAGCCAGACATTC |
| 5634 | PIK3R3 | TGTAGGAAATACAGATGAAG |
| 5635 | PIK3R4 | ATCGTTAGACTAGCCTATGC |
| 5636 | PIK3R4 | CACAAATCTGGAGTTCGTCA |
| 5637 | PIK3R4 | TAACGATAGTAGCATCATCT |
| 5638 | PIK3R4 | CAAAAACCTTCACAACGACC |
| 5639 | PIK3R4 | CCAAATGGAAATTATGACAC |
| 5640 | PIK3R4 | CCTGTGTCATAATTTCCATT |
| 5641 | PIK3R5 | GGTCGTAGGTGCCCTTCTCC |
| 5642 | PIK3R5 | GATCCTGCAGAAGACCCGAG |
| 5643 | PIK3R5 | CTACGACCTGCTCACCCCGC |
| 5644 | PIK3R5 | CAGGCCAGGTCAGGAACCGG |
| 5645 | PIK3R5 | CTTGAGTTCAGCATCAATGA |
| 5646 | PIK3R5 | TCACCTCTCGGGTCTTCTGC |
| 5647 | PIP5KL1 | GGACCTCCGAGAAATCGTCC |
| 5648 | PIP5KL1 | AGCCTTCCAACGTCTCCACG |
| 5649 | PIP5KL1 | GGCCTCCTACCTCGTGAACC |
| 5650 | PIP5KL1 | CGGAGGAACCAGCTCCGCTG |
| 5651 | PIP5KL1 | CCGAGACAAGCAGTCTCGCC |
| 5652 | PIP5KL1 | GCCTGTTTGAGATCAGCCCG |
| 5653 | PITX3 | ACACGGGTCCCGATAGACGT |
| 5654 | PITX3 | CCCCACGTTGACCGAGTTGA |
| 5655 | PITX3 | GCATACCCGCACGCGGGCCT |
| 5656 | PITX3 | CGTGTGGACCAACCTCACCG |
| 5657 | PITX3 | GCCCTGTCGCTGTCAGACGC |
| 5658 | PITX3 | TGCCAGCGTCTGACAGCGAC |
| 5659 | PIWIL1 | GGCCTAGGCTGAATATAACC |
| 5660 | PIWIL1 | GCTGCGCTGTCTCCTGACCG |
| 5661 | PIWIL1 | GGGAATTATTTGGCCGTGGA |
| 5662 | PIWIL1 | GAGTTATCGTTAGCAGAGAG |
| 5663 | PIWIL1 | CCTGAAATCCAGCAGATATC |
| 5664 | PIWIL1 | CGGTCAGGAGACAGCGCAGC |
| 5665 | PKHD1 | CTGGTCCGGCATGTCACCAC |
| 5666 | PKHD1 | CCACCATGTTCACGTTCACC |
| 5667 | PKHD1 | TGATCCACGTTCCCCCTGCA |
| 5668 | PKHD1 | GAGTATTGAAGTACTACTTT |
| 5669 | PKHD1 | AAGTGGACAGAATGACTGCC |
| 5670 | PKHD1 | CAGGTTCAATATGTAAACTC |
| 5671 | PKHD1L1 | TATCAACTCCATAGTTAAAC |
| 5672 | PKHD1L1 | CTACATCACAAGTAATTGAC |
| 5673 | PKHD1L1 | TGTGCCGCGGATCCCAGCAC |
| 5674 | PKHD1L1 | GTTACCTGTGCTGGGATCCG |
| 5675 | PKHD1L1 | CCATTTATACTGCCATATTT |
| 5676 | PKHD1L1 | GCAACAAGGCTGACTATAAG |
| 5677 | PKLR | CGGCACGACCCGGACAATAT |
| 5678 | PKLR | AGTGGAGAACGGCGGCGTCC |
| 5679 | PKLR | CCAGCGACGTGGCTGCCGTC |
| 5680 | PKLR | GGCCGCATCTACATTGACGA |
| 5681 | PKLR | GAGTCGCGCAATGTTCATCC |

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|---|---|---|
| 5682 | PKLR | AGGGCCAGCATCTCGCTCCG |
| 5683 | PKM | ATCACTGCCTTCAGCCCGAG |
| 5684 | PKM | CAGCCACGTACCAACATTCA |
| 5685 | PKM | GACGAGCTGTCTGGGGATTC |
| 5686 | PKM | GGCTGTGCGCATGCAGCACC |
| 5687 | PKM | CATCAGGTTTGATGAAATCC |
| 5688 | PKM | CCTGGAGCACATGTGCCGCC |
| 5689 | PKMYT1 | CAAGGACCGGGCCCGCAAGT |
| 5690 | PKMYT1 | AACGCTTTACCGCATAGAGC |
| 5691 | PKMYT1 | CGCCCCGGAATGACACCCGC |
| 5692 | PKMYT1 | CACCTTGAAGACCTCTCCGT |
| 5693 | PKMYT1 | CAACTTGCGGGCCCGGTCCT |
| 5694 | PKMYT1 | TCCCTTCCAGGTGCGCTCCA |
| 5695 | PKP2 | GCGAGCAGTGAGTATGCTCG |
| 5696 | PKP2 | TCCTACCTTTAGCATGTCAT |
| 5697 | PKP2 | GCTTGAGGATGCCACGAAGC |
| 5698 | PKP2 | CCCCAGGTTAACCAGCTTCG |
| 5699 | PKP2 | TCTTCCGAGCTTCAGATTTC |
| 5700 | PKP2 | TAAAACCTATGACATGCTAA |
| 5701 | PKP4 | GGGGCAACCACAGACCCGCC |
| 5702 | PKP4 | CTGTAGACTTGCCAAAAACG |
| 5703 | PKP4 | CACTATTCTAGCATCCGTGA |
| 5704 | PKP4 | TCATTCTAGGTGTGTAGGTT |
| 5705 | PKP4 | CCACTGACCTGACTGAATGA |
| 5706 | PKP4 | TCTCGCTCCAATGTCGACAC |
| 5707 | PLA2G12B | GAATAGGACTCCTCCGTGTC |
| 5708 | PLA2G12B | CAAAGCCCAGACTCCGCTTA |
| 5709 | PLA2G12B | GCTGTGATGCAAAATTCCGA |
| 5710 | PLA2G12B | TGCCCGCTGACTATTCATAA |
| 5711 | PLA2G12B | AAATAGGAGCCGCAGCCATT |
| 5712 | PLA2G12B | AGCTTCCCCGGAGGTGCCGA |
| 5713 | PLA2G2A | TCACCGATCCGTTGCATCCT |
| 5714 | PLA2G2A | TGACTGTTGCTACAAACGTC |
| 5715 | PLA2G2A | AAGGAAGCCGCACTCAGTTA |
| 5716 | PLA2G2A | CATGAAGACCCTCCTACTGT |
| 5717 | PLA2G2A | TCAACTGTGTGAGTGTGATA |
| 5718 | PLA2G2A | CGTCTTGTTTCTAGCAAAAC |
| 5719 | PLA2G2F | GGTACTCCTCTCGGTACGTC |
| 5720 | PLA2G2F | CCAAGGCTGTCACCCCTATG |
| 5721 | PLA2G2F | CATGAACCAGACGTACCGAG |
| 5722 | PLA2G2F | GTAGCAACCGTAGCCCACGA |
| 5723 | PLA2G2F | GATGGCGCTCCTCCCTGTGA |
| 5724 | PLA2G2F | TATCTCAGTGTTGTTCTCGA |
| 5725 | PLA2G4D | GACAGCTGTAGGATCACGTA |
| 5726 | PLA2G4D | ACTGGTGTCGGTGAGCGTCT |
| 5727 | PLA2G4D | GGAGCTTAGCATCTATGATG |
| 5728 | PLA2G4D | TTACTCACGTTTCTTCCATC |
| 5729 | PLA2G4D | GACATCTCAGAAGTCCTCCC |
| 5730 | PLA2G4D | AGGGGGAGGCCTCTACCTGC |

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| 5731 | PLA2G4E | GGATGACCCTCACTGTCAAC |
| 5732 | PLA2G4E | TCATCCGGATGAAAAATGTC |
| 5733 | PLA2G4E | GCACCCACCTGCGGGTTGAG |
| 5734 | PLA2G4E | GAAGTTTCCACTCAACCCGC |
| 5735 | PLA2G4E | GTCTCACCTTCACTCGGCTC |
| 5736 | PLA2G4E | CCAGATCCAGAGCCGAGTGA |
| 5737 | PLEKHB2 | ACTGCATCAACATCCGCACG |
| 5738 | PLEKHB2 | CTCCAGATTGTTTGTCGAGA |
| 5739 | PLEKHB2 | CCTCGATATTCTGCCGAGTC |
| 5740 | PLEKHB2 | GGAAACCACGGATGTCTCAT |
| 5741 | PLEKHB2 | CATGACCGATGAGACATCCG |
| 5742 | PLEKHB2 | TTTCATAGATACTCAGCCCC |
| 5743 | PLEKHM3 | GATCGTGATCGAGCATGCCC |
| 5744 | PLEKHM3 | TCCACTGTTGAGCTACAACG |
| 5745 | PLEKHM3 | ATTCTGCCGCCCCATGTAAC |
| 5746 | PLEKHM3 | ACAGGCTGCCAGCGATCCAT |
| 5747 | PLEKHM3 | CAGCACGCATAGTCCACAAC |
| 5748 | PLEKHM3 | ACCTCATGCCCCACCAGTTC |
| 5749 | PLEKHN1 | AAAAGTTGTGCATTACGCCA |
| 5750 | PLEKHN1 | GTCCCCGCTTCGAGCAGCCT |
| 5751 | PLEKHN1 | TCACCGTGCCCGGGATGTAG |
| 5752 | PLEKHN1 | TCACCTGTTTCCCTTCAGCG |
| 5753 | PLEKHN1 | GCCCCTTCTTGAACACACTC |
| 5754 | PLEKHN1 | GAACAGCCACTGTGTCCCTC |
| 5755 | PLEKHS1 | AACCTACCATATCCGTCCTG |
| 5756 | PLEKHS1 | GCAAGATAGTTGATGACATC |
| 5757 | PLEKHS1 | TTCTCAGCTGTTCTCCTCTG |
| 5758 | PLEKHS1 | ACAGAGGAGAACAGCTGAGA |
| 5759 | PLEKHS1 | TATCCCCGATGAAAGCCAAG |
| 5760 | PLEKHS1 | CTTGCTCTCACAGAAGCCAC |
| 5761 | PLG | GATTTCTTACCTTCTTCGGA |
| 5762 | PLG | CAGATGCCGATAAAGGCCCC |
| 5763 | PLG | GCGGCCCCTTCATTTGATTG |
| 5764 | PLG | AAACATACTTCTCCAAGCAG |
| 5765 | PLG | AGGTTTGGAATGCACTTCTG |
| 5766 | PLG | TGTTCTAAGACTGACTTGCC |
| 5767 | PLLP | GTCCGCGTGCTAACTTTCGA |
| 5768 | PLLP | TCCCGTCGAAAGTTAGCACG |
| 5769 | PLLP | CCGGCCTTATAACCAGCGCG |
| 5770 | PLLP | TCACCGAGGCAGCCGCGCGC |
| 5771 | PLLP | GAGTGCCTTCTTCAGCTACC |
| 5772 | PLLP | CTTTCAGTTCTTTGCGTGTT |
| 5773 | PLOD2 | CTATGCTGATCAAGATGATC |
| 5774 | PLOD2 | TGTTTATAGGTCCTTGGTCA |
| 5775 | PLOD2 | CGTTTCCCAATGTGCACAAC |
| 5776 | PLOD2 | CTGCTGCAAAGACCACTTTG |
| 5777 | PLOD2 | ATATTTCAATTATACTGTGA |
| 5778 | PLOD2 | CACAGTATAATTGAAATATT |
| 5779 | PLSCR3 | CCAGGATGTAGCGCCGGCTC |

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|---|---|---|
| 5780 | PLSCR3 | TGGGCCGCATCAGCAAGCAG |
| 5781 | PLSCR3 | CCGGAGCCGGCGCTACATCC |
| 5782 | PLSCR3 | CCTACAGTTCCCGCTGGACC |
| 5783 | PLSCR3 | TTTCCACTCGCTCAGCCTTC |
| 5784 | PLSCR3 | ACAGGCTACTTGCCCCCCAA |
| 5785 | PML | GCGGTACCAGCGCGACTACG |
| 5786 | PML | CTGCGCGTGAACCGCGCCAA |
| 5787 | PML | CTCACCAGGTCAACGTCAAT |
| 5788 | PML | GTCGGTGTACCGGCAGATTG |
| 5789 | PML | ACCGCACCCCTACGCTGACC |
| 5790 | PML | GGACCCTATTGACGTTGACC |
| 5791 | PMS2 | CGACTGATGTTTGATCACAA |
| 5792 | PMS2 | CAAAAGTTTCAACCTGAGTT |
| 5793 | PMS2 | TTCCAACCTTCGCCGATGCG |
| 5794 | PMS2 | CTTATTGAAGTTTCAGACAA |
| 5795 | PMS2 | CTCTAGTACAGAACCTGCTA |
| 5796 | PMS2 | CCCAAACTTACCAATATTAG |
| 5797 | PNP | GGGGGAGCAACGTGAGCTAC |
| 5798 | PNP | CCCAACTTTCCCCGAAGTAC |
| 5799 | PNP | CGTGACCATATCAACCTACC |
| 5800 | PNP | CCATGTCTGATGCCTACGAC |
| 5801 | PNP | AGTGGTCAGAACCCTCTCAG |
| 5802 | PNP | CTTGCCAGTACCTGTACTTC |
| 5803 | PODNL1 | CTTGGACCTTCGAGTGTTCC |
| 5804 | PODNL1 | AATGAGCTGTCCCGCCTCAG |
| 5805 | PODNL1 | CTGCCCCCGAGTCGACACTG |
| 5806 | PODNL1 | TGTGGAGGTTGAGGGTTCGC |
| 5807 | PODNL1 | TTCAATGGGGAGGCCCACCC |
| 5808 | PODNL1 | GAGGCGGGACAGCTCATTGT |
| 5809 | PODXL | TAGATGAGTCCGTAGTAGTC |
| 5810 | PODXL | GATGCGTCGAAGTGGGTTGT |
| 5811 | PODXL | CAGCTCGTCCTGAACCTCAC |
| 5812 | PODXL | GGTGTTCTCAATGCCGTTGC |
| 5813 | PODXL | TCGTGGGCTGCACTGTCTCC |
| 5814 | PODXL | CACAGAGGGTGTTTCCTGTG |
| 5815 | POLA1 | TGGTAGGTCGAGGACTTCAC |
| 5816 | POLA1 | AGGCACGCCAGGATGATGAC |
| 5817 | POLA1 | GCCCTTGATGCTGATGAGAA |
| 5818 | POLA1 | TGCAGATGGTATTGGCTATG |
| 5819 | POLA1 | AGCCCTAGAAAGACTGAAAA |
| 5820 | POLA1 | CGAGAAAAAAAATCAAAGAA |
| 5821 | POLA2 | CTCTTACACCACACCTTCAA |
| 5822 | POLA2 | GTCCTTGCAGGTACTATGCC |
| 5823 | POLA2 | GCAAAAGATTATCGAAAGCC |
| 5824 | POLA2 | CAGAAACCCCCCTAACAAAA |
| 5825 | POLA2 | CACCGTCAAGTTTCTCTCCA |
| 5826 | POLA2 | TTTACTTACCTTTGAAGGTG |
| 5827 | POLB | CACTTCAGAATCAACCAAAC |
| 5828 | POLB | ACCTGTAAGCATTGTACTTG |

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|---|---|---|
| 5829 | POLB | GAATACATTGCTACAGTCTG |
| 5830 | POLB | GAGAACATCCATGTCACCAC |
| 5831 | POLB | TCCACAAGTACAATGCTTAC |
| 5832 | POLB | TACCCACACAAAATAAAGAG |
| 5833 | POLD1 | CCGGATCTCAAAGTCGACGT |
| 5834 | POLD1 | GCCCAGCTTCGCGCCCTACG |
| 5835 | POLD1 | AGGTTTCGGGCCCGAGCACA |
| 5836 | POLD1 | CCAAGTTCAGCTCCCGTTGC |
| 5837 | POLD1 | AGAAGTAGGGAGCGAAGCCG |
| 5838 | POLD1 | GGCCACTCACCAGGGGGCGC |
| 5839 | POLD3 | ACTAGGGGTTCATGTTAACC |
| 5840 | POLD3 | TCATAGTCAGTATTGAACAG |
| 5841 | POLD3 | GCTGGCAGTCACAGCTAGCT |
| 5842 | POLD3 | ATTGGACTTACTGTTTGGCC |
| 5843 | POLD3 | CTCTCACTACTGCAACCTTG |
| 5844 | POLD3 | AGTAGTGAGAGAAGATAAAT |
| 5845 | POLD4 | AATCAGTGATGAGCCGCTTC |
| 5846 | POLD4 | ATTCCTACCCGGTTGTGAAG |
| 5847 | POLD4 | TGGCATCTCTATCCCCTATG |
| 5848 | POLD4 | GGATCACACGGCTGCAGCGC |
| 5849 | POLD4 | GCTCCGCTTCCTCCTCGTCG |
| 5850 | POLD4 | GGAGCCCCAGCCCCGCGACG |
| 5851 | POLE2 | TCGCAAATATGGCGCCGGAG |
| 5852 | POLE2 | AAACATGATTGAACGATCTG |
| 5853 | POLE2 | CAGCAAGCCCCGCAACTTGA |
| 5854 | POLE2 | ATTAGAGCTTGAAGATAAAC |
| 5855 | POLE2 | CAACAGACTGACTGCATTCC |
| 5856 | POLE2 | TAGACTGAAGAGCTTCTGTG |
| 5857 | POLE3 | TCGTGCTGTACGCCACATCC |
| 5858 | POLE3 | GGCGTACAGCACGAAGACGC |
| 5859 | POLE3 | CGTCCTTACAGCATATAGGC |
| 5860 | POLE3 | TACCCCATTGAAAGAAGCTC |
| 5861 | POLE3 | CACCGCCTCCTTGATGATCC |
| 5862 | POLE3 | TGCCCAATGCCGTGATCACC |
| 5863 | POLE4 | AGATCCCGACGTGACGCTAG |
| 5864 | POLE4 | CTGTCCCGCTAGCGTCACGT |
| 5865 | POLE4 | TGCCTACTGTTGCGCTCAGC |
| 5866 | POLE4 | TCCCTGCTGAGCGCAACAGT |
| 5867 | POLE4 | AGATAATGCAATAGAAGCTG |
| 5868 | POLE4 | AAGGCCTTCACTCGCGCCAG |
| 5869 | POLH | CACAAGTTCGTGAGTCCCGT |
| 5870 | POLH | TCAGAGGGGATGCGAAAACA |
| 5871 | POLH | AGTTATGAAGCTCGTGCATT |
| 5872 | POLH | GTTGGGCTTGTTTAGTCCAC |
| 5873 | POLH | AAATGAGAGCAGCCATAGAG |
| 5874 | POLH | CAAGCCCAACCGCCAAACCC |
| 5875 | POLL | GGTTGTGATTGGTCGCCTTC |
| 5876 | POLL | CATGTTGTGCGCACTGGCAT |
| 5877 | POLL | TGGTTCATACCGACGGGGAA |

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|---|---|---|
| 5878 | POLL | GAGCACGTCGACATCACCAC |
| 5879 | POLL | GTGCACAGACCCACTTATCC |
| 5880 | POLL | ACCACAATGTGAGTGACACC |
| 5881 | POLR1C | GTGGTTCACGTACAGTTCGT |
| 5882 | POLR1C | GTCCCTCTAGAATTTCCGTG |
| 5883 | POLR1C | CAGAATTCGTCGAAAAGCAT |
| 5884 | POLR1C | TGAGATTCTTGCTCACCGTC |
| 5885 | POLR1C | CCCCACTTACCTTCTCGAAG |
| 5886 | POLR1C | GAACTGTACGTGAACCACAA |
| 5887 | POLR1D | AAGCACAGCTTCCGCGCTCG |
| 5888 | POLR1D | GCGCGGAAGCTGTGCTTGTA |
| 5889 | POLR1D | AATTTACGCATTCAGACTCG |
| 5890 | POLR1D | TGTGACATTTGTATTGCACG |
| 5891 | POLR1D | CCCAGCGATGGAAGAGGATC |
| 5892 | POLR1D | GAAAACTAGAGCTGAAACAA |
| 5893 | POLR2A | CAATGAGCAGAACGGCGCAG |
| 5894 | POLR2A | TGGAGCGGGGCACGCCAACC |
| 5895 | POLR2A | TGCCCTTCAACCGCTGCTTC |
| 5896 | POLR2A | GCAAAAACATATGCGAGGGT |
| 5897 | POLR2A | ACATGTCTACGACCTTTGCA |
| 5898 | POLR2A | TGACTCACACGGGGCAAGCC |
| 5899 | POLR2C | TCAGGGTGGCCAATTCGATT |
| 5900 | POLR2C | CCTTTCTCAACTTGACGATG |
| 5901 | POLR2C | ATCGCTGAGGTTCCCATAAT |
| 5902 | POLR2C | ATCAATCTGAACCCAGTCAA |
| 5903 | POLR2C | ACGATCCAGACAATGCCCTG |
| 5904 | POLR2C | CCACAATGTCATCACTAATG |
| 5905 | POLR2D | TAGCACTCACCTACGAACAC |
| 5906 | POLR2D | AGACCATTGCCAGTGTTCGT |
| 5907 | POLR2D | TCCGCGGGCTGGCGACGTAG |
| 5908 | POLR2D | AGTCCAAGGCTCTAATCCCA |
| 5909 | POLR2D | TCCTCTACGTCGCCAGCCCG |
| 5910 | POLR2D | ACTGAAAGCTGCGCTTTGTC |
| 5911 | POLR2E | CATCAACATCACGGAGCACG |
| 5912 | POLR2E | CATGACACCCTCCGCCAAGC |
| 5913 | POLR2E | CATCACACGGGCTCTCATCG |
| 5914 | POLR2E | AATCCGCAAGACCATCATGC |
| 5915 | POLR2E | ACTTGGGGGCCATGTCGACC |
| 5916 | POLR2E | GGACGAGCTTGACCAGACCC |
| 5917 | POLR2F | CACGCGGGCTCGCTCGTACT |
| 5918 | POLR2F | GGAGGATCTCGACATTCTCC |
| 5919 | POLR2F | CAGTCTTCATAGCTCCCATC |
| 5920 | POLR2F | ATTCGCCGTTACCTGCCAGA |
| 5921 | POLR2F | CAGGATGTGTGCCCCTGTGA |
| 5922 | POLR2F | TGGCGACGACTTTGATGATG |
| 5923 | POLR2G | CTGCTGCACCCGCGCTACTT |
| 5924 | POLR2G | CGAAGTAGCGCGGGTGCAGC |
| 5925 | POLR2G | ACAATGGCCTTGTACTTAAC |
| 5926 | POLR2G | TGAGATCCGCTTAAAGATTG |

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|---|---|---|
| 5927 | POLR2G | ACCAGCACCAATATTGTCAA |
| 5928 | POLR2G | GTTGGACTCTTCACAGAAAT |
| 5929 | POLR2H | CCTGGAAGGCCTATCATCAG |
| 5930 | POLR2H | AGCTCTGCGTACGTGTCCTA |
| 5931 | POLR2H | GCTAGTACCTTGTATGAAGA |
| 5932 | POLR2H | AGTCCACCTCGAATCCATGC |
| 5933 | POLR2H | CAATACTTACCCAAGTCTAC |
| 5934 | POLR2H | TCAAATTTACCCTGTAGACT |
| 5935 | POLR2I | CAACAAGATCACGCACGAAG |
| 5936 | POLR2I | GAACCGCATTCTGCTCTACG |
| 5937 | POLR2I | CGGCCCGCGCACTGTGTGAC |
| 5938 | POLR2I | CCCTCTCAGGTGCGGCCACA |
| 5939 | POLR2I | CCGGAACTGTGATTACCAGC |
| 5940 | POLR2I | TCACCGCGTAGAGCAGAATG |
| 5941 | POLR2J | GGTGGCCATAAAAGACAAGC |
| 5942 | POLR2J | CCCGAAAGCGCTCCTCCAGC |
| 5943 | POLR2J | CGAGTCGTTCTTGCTCTTCG |
| 5944 | POLR2J | GAAGAGCAAGAACGACTCGA |
| 5945 | POLR2J | TCCTAGGATCACCATTAACA |
| 5946 | POLR2J | TAATGATGTTTCCCAGTGTG |
| 5947 | POLR2K | TTGGAGGTTGAACGTCCTTC |
| 5948 | POLR2K | CCAATCAGATGCAGAGAATG |
| 5949 | POLR2K | CAACCAATGATATATATCTG |
| 5950 | POLR2K | CCACATTCTCTGCATCTGAT |
| 5951 | POLR2K | GCTAACAATGGACACCCAGA |
| 5952 | POLR2K | ACAGAATAATGTACAAGAAA |
| 5953 | POLR3C | GTTAGCAACTGCGCTCACAA |
| 5954 | POLR3C | TGCGAATGCTTAGATATCCC |
| 5955 | POLR3C | ATCTAAGCATTCGCAATACC |
| 5956 | POLR3C | TTGTGAGCGCAGTTGCTAAC |
| 5957 | POLR3C | ATCAAACACATTTGTGCGAC |
| 5958 | POLR3C | GTTCCTAAACTCAGCTTGAT |
| 5959 | POLR3GL | CAGATTGGCGGCGTCTACCC |
| 5960 | POLR3GL | CGATTGACAATGCCATCGAT |
| 5961 | POLR3GL | CCTACCAGGGTTCCAATCGA |
| 5962 | POLR3GL | AGGTACTGGGCGGAACTCCA |
| 5963 | POLR3GL | CCGAGTGCGGAAGCTACAGA |
| 5964 | POLR3GL | ATATTCCCCTTCCTCGCCTG |
| 5965 | POM121 | ACTTGCGTAAGCGCCTGTCA |
| 5966 | POM121 | ACTGAGTGCCCTCAAAGAGA |
| 5967 | POM121 | TGGGGCGTTACTTGATGGTG |
| 5968 | POM121 | GAACGCGAAAATCTTCTGTC |
| 5969 | POM121 | TGTGTAGCCCAGTGACTGTG |
| 5970 | POM121 | TACCTGTGAGATGCCTCGAG |
| 5971 | PON1 | ACGACTTAATGCTCTCCGAG |
| 5972 | PON1 | GTTCTACGGGTTGTACCTCT |
| 5973 | PON1 | CATCTGGATGGTTCACCACC |
| 5974 | PON1 | TGTCTATATAGCTGAGTTGC |
| 5975 | PON1 | AGATAATGCCATGTACCTCC |

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|---|---|---|
| 5976 | PON1 | CTAATGAAAGCCAGTCCATT |
| 5977 | POU2F2 | GACTCCCCATCAGAGCACAC |
| 5978 | POU2F2 | TGCTCAGTTCCTGCTACCGC |
| 5979 | POU2F2 | CCAGTTGGGGACACGGAGAA |
| 5980 | POU2F2 | TGCGGTAGCAGGAACTGAGC |
| 5981 | POU2F2 | CAGGTGCTTACCTTTGTACT |
| 5982 | POU2F2 | GGAGTCCAGACCTTGCTTCT |
| 5983 | PPFIBP1 | TAAAGAATCCCTCGTTCTTC |
| 5984 | PPFIBP1 | AATCACTTGCCTGAAGAACG |
| 5985 | PPFIBP1 | TATAATAGGAGCTTCTAAGT |
| 5986 | PPFIBP1 | AAAAAGGCTACAAGAAAAAT |
| 5987 | PPFIBP1 | ATCCAACTTCTGAGTTTCTA |
| 5988 | PPFIBP1 | AAAAGAACAACTAGAAGAAA |
| 5989 | PPFIBP2 | CTAGACGTGCCAAGCGTTCC |
| 5990 | PPFIBP2 | AACGCTTGGCACGTCTAGAA |
| 5991 | PPFIBP2 | GCCTCAAGTCCTCGATGAGA |
| 5992 | PPFIBP2 | AGTGATGGTACTTGTGAGCC |
| 5993 | PPFIBP2 | CTGCACTGCTAGACCACATT |
| 5994 | PPFIBP2 | GAAAGCCATCAACACCAAAC |
| 5995 | PPP1R18 | AGCCCAACCCGACGACGAAG |
| 5996 | PPP1R18 | CCAATACCCCTCCGAGAGTT |
| 5997 | PPP1R18 | ATGAATCGGTTCTGGTGCAC |
| 5998 | PPP1R18 | GAAGCGGTACCCAACTGCCG |
| 5999 | PPP1R18 | GGAAGATGGTCACCGCCGGC |
| 6000 | PPP1R18 | CTCCCACAGATGAGTCCTGC |
| 6001 | PPP1R21 | CGGTCTCACCCGGAAGTACA |
| 6002 | PPP1R21 | TGAGACCGTCAACCACAGCT |
| 6003 | PPP1R21 | TCAGCTTCGGGCTCAGAATC |
| 6004 | PPP1R21 | AGCAAATTCTGCAGCTTTAA |
| 6005 | PPP1R21 | AGAAGATAGAAGAGAATGAA |
| 6006 | PPP1R21 | TGATGAGCAGCACAAGCATG |
| 6007 | PPP2R5A | TGATCAGAAATTCGTACAAC |
| 6008 | PPP2R5A | TTACGGATTCCAGTGTTCTT |
| 6009 | PPP2R5A | AACCCACGCTTGAGGCCTCT |
| 6010 | PPP2R5A | AGCGTGGGTTCATCCTCTTC |
| 6011 | PPP2R5A | TACAAACTGGCAAACATAAT |
| 6012 | PPP2R5A | TCAAAATCTGGATTATCACT |
| 6013 | PPT1 | TTTGGACTCCCTCGATGCCC |
| 6014 | PPT1 | GGCGTACTCCAAAGTTGTTC |
| 6015 | PPT1 | GCCTCGTGCAAGCCGAATAC |
| 6016 | PPT1 | GCCAGTATTCGGCTTGCACG |
| 6017 | PPT1 | CTGTTGCAATCCCTTAAGCA |
| 6018 | PPT1 | TGTCTCACCTCCGAATCTAC |
| 6019 | PRCC | TTGTAGCTGTAGTCGTCCCC |
| 6020 | PRCC | GGGCATTGGCTGCATCGTCC |
| 6021 | PRCC | TTTCCAGTTTAAGCGGCTGC |
| 6022 | PRCC | ATGACTTAGTCATCCATTGC |
| 6023 | PRCC | TTCCGCCGCTGCTGGCCTGT |
| 6024 | PRCC | GATGAATAAGATATGTGATC |

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|---|---|---|
| 6025 | PRDM6 | CGCAGGTTGCGACATGTGCG |
| 6026 | PRDM6 | GGGAACCTAGTAAGTCGAGC |
| 6027 | PRDM6 | AACACCGGCAGCTGCGACAC |
| 6028 | PRDM6 | ATCTAACAGTAGTTCAGTAC |
| 6029 | PRDM6 | CGTACGGTTGTTGGGGTCGC |
| 6030 | PRDM6 | GCACTCGCTGCGCCGGCTTG |
| 6031 | PRDM9 | CTCGCTATAGGAATGTGAAA |
| 6032 | PRDM9 | TATAATGCACTGATTACTAT |
| 6033 | PRDM9 | GAGCCCTGAAAAGTCCCAAG |
| 6034 | PRDM9 | CAGAAGATTCTGATGAAGAA |
| 6035 | PRDM9 | GTTCTCTCTGTGTCTTCTTC |
| 6036 | PRDM9 | TCCCTCTTACCTTGCTGCCT |
| 6037 | PREPL | GACGTATATCGAGCCACTTT |
| 6038 | PREPL | GATATACGTCATGACAGCGA |
| 6039 | PREPL | ATTCGCTTCTGGATAAGTAC |
| 6040 | PREPL | CTTATCCAGAAGCGAATACA |
| 6041 | PREPL | TATTAGCATACTGCCATGTT |
| 6042 | PREPL | CCATATACATGTACCAAGAG |
| 6043 | PRIM1 | TGACAGACTATGACGATGTG |
| 6044 | PRIM1 | TTCCAACAGACCTGATAAAA |
| 6045 | PRIM1 | GCGCCTATATCAATCTTGTA |
| 6046 | PRIM1 | TCAACACAATACAGTGAAGC |
| 6047 | PRIM1 | CTTCAACAACCAGAGTGATC |
| 6048 | PRIM1 | CTTCACTGTATTGTGTTGAT |
| 6049 | PRKAA1 | TACTCAATCGACAGAAGATT |
| 6050 | PRKAA1 | TCCTGTTACAGATTGTATGC |
| 6051 | PRKAA1 | GGGCCACAATCAAAGATATC |
| 6052 | PRKAA1 | GTTGGCAAACATGAATTGAC |
| 6053 | PRKAA1 | AGTAAAAACAGGCTCCACGA |
| 6054 | PRKAA1 | TTTCAGAAATCTGATGTACC |
| 6055 | PRKAB1 | CCCGTCCATCGAAACACCGT |
| 6056 | PRKAB1 | CTCGGCCAACGGTGTTTCGA |
| 6057 | PRKAB1 | CCTTGATAGACAGCGCGTAT |
| 6058 | PRKAB1 | CCTATACGCGCTGTCTATCA |
| 6059 | PRKAB1 | GTGGACGCACGACCCTTCCG |
| 6060 | PRKAB1 | CCCATAGTAACCAGCCAGCT |
| 6061 | PRKAG1 | GTGTACGAGCTGCCCCTTTA |
| 6062 | PRKAG1 | CCGCTACTATAAATCAGCCT |
| 6063 | PRKAG1 | CCAAGGCTGATTTATAGTAG |
| 6064 | PRKAG1 | TGCTTCTTACTATCCCATAA |
| 6065 | PRKAG1 | TTCAGATAGCTCCCCAGCTG |
| 6066 | PRKAG1 | GATATTGATGAAATCAGTGA |
| 6067 | PRKCE | CGTCAGGCGCAGGGTCCATC |
| 6068 | PRKCE | TATGTGATCATCGATCTCTC |
| 6069 | PRKCE | GTAGGTGGGCTGCCGAAGAT |
| 6070 | PRKCE | AAGCAGGGATACCAGTGTCA |
| 6071 | PRKCE | ATCACATACACTCTTCCTTC |
| 6072 | PRKCE | AACGCATGCGGCCGAGGAAG |
| 6073 | PRKD1 | CTTCAATAAGATCGCCTTCC |

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|---|---|---|
| 6074 | PRKD1 | CGACCAATAAACGACTCTGA |
| 6075 | PRKD1 | CCTCACACCGCTGCAATTGT |
| 6076 | PRKD1 | TTGTCATCCACTCCTACACC |
| 6077 | PRKD1 | GAAAGCGGCCAGTGATATCC |
| 6078 | PRKD1 | CATACCAGAAGGGGCTCATC |
| 6079 | PRLH | TTGCCCTCCTCCGACCGAAG |
| 6080 | PRLH | GAGCTGCAAGTCGTACCCAT |
| 6081 | PRLH | TACGACTTGCAGCTCCCCGC |
| 6082 | PRLH | ACGACATAGCACCGCCTTCC |
| 6083 | PRLH | CACAGGCCTGATCCCGCGAC |
| 6084 | PRLH | AGCAGGTCAGCCGGGGTCGC |
| 6085 | PRRT2 | CGCCACGATGCTTAAGAGCT |
| 6086 | PRRT2 | ACCGCCTAAGTTGATGACGC |
| 6087 | PRRT2 | GGCCTTCGCTTATGCTGTCA |
| 6088 | PRRT2 | CACCATGACAGCATAAGCGA |
| 6089 | PRRT2 | TCTCCCACAGTGTATAAGTG |
| 6090 | PRRT2 | CGTGGACGGGGCCCAGCGTC |
| 6091 | PRRX2 | CCGAGAAGTTCTTGCGCGCC |
| 6092 | PRRX2 | CCAGGCGCGCAAGAACTTCT |
| 6093 | PRRX2 | GGCGCGGTAGCGCCGCCAAG |
| 6094 | PRRX2 | CCGGCGCGTCAACCTCAGCG |
| 6095 | PRRX2 | ACTGGACTTCAGTTCACCGT |
| 6096 | PRRX2 | GGCCGCCATCGAGCAGCCCG |
| 6097 | PRSS23 | GCACATGGGTGCGTTTCACC |
| 6098 | PRSS23 | CTGGCTGGGCATCGCATTGC |
| 6099 | PRSS23 | GTGGAGTTCCCTTATGACAC |
| 6100 | PRSS23 | GCTGCCCACTGCATACACGA |
| 6101 | PRSS23 | GTAGACTGGGGCAAGACGAC |
| 6102 | PRSS23 | ATAATCCATGCCGATGTCAT |
| 6103 | PRSS38 | ACCAATGCTGCGACCCGGGG |
| 6104 | PRSS38 | GGTGGTACATCTCATATGTG |
| 6105 | PRSS38 | ACCTTACCAGTGCCAATTGC |
| 6106 | PRSS38 | TGGAGCCGCCGCAGACGTGG |
| 6107 | PRSS38 | GCGGCGTCCCTGCGCCCGAG |
| 6108 | PRSS38 | AATCTCCCTAACTGGCAGCG |
| 6109 | PSAT1 | AGCTGTTCCAGACAACTATA |
| 6110 | PSAT1 | ACAACACGCCTCCATGTTTC |
| 6111 | PSAT1 | AGGAAGGTGTGCTGACTATG |
| 6112 | PSAT1 | CAGAGTTACCTGAAACATGG |
| 6113 | PSAT1 | CTTTCACAGAAATGAGTCAC |
| 6114 | PSAT1 | CTCTGTATTGTTAATAATCT |
| 6115 | PSME4 | AGCATGAATTTGACTCCCGA |
| 6116 | PSME4 | TGTGTAACACCTTGTCTATC |
| 6117 | PSME4 | TTCTTAAGGCCTGATAGACA |
| 6118 | PSME4 | CTTCTGAATTATCAAGTATG |
| 6119 | PSME4 | ATTCATGCTTGTGAGATCCT |
| 6120 | PSME4 | GTCATTGTTTCTTATTATAA |
| 6121 | PSPH | TCCTAGGACACGGCGAGCCA |
| 6122 | PSPH | GTTCCTCTTACCTTATGCCG |

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|---|---|---|
| 6123 | PSPH | AATACATACAGCAGGAGGAC |
| 6124 | PSPH | TTTCCACCAGATTCAGCTGT |
| 6125 | PSPH | AAAGTAGAATTTCAGCCTAT |
| 6126 | PSPH | CCTTCTTAGGATGCTTTCAT |
| 6127 | PSRC1 | CCCGATCGACTCCCCCAGTC |
| 6128 | PSRC1 | AGATCCTCGATGAGGCCAAC |
| 6129 | PSRC1 | CTGCGCTCTCCCGATCCTGC |
| 6130 | PSRC1 | ATTCTCTGTCAACTCGAAAA |
| 6131 | PSRC1 | GCCCGGCTCTCCCCCGGACT |
| 6132 | PSRC1 | GCCGAATGCCACTCACCAGC |
| 6133 | PTEN | ACCGCCAAATTTAATTGCAG |
| 6134 | PTEN | CCTACCTCTGCAATTAAATT |
| 6135 | PTEN | TTATCCAAACATTATTGCTA |
| 6136 | PTEN | ACAGATTGTATATCTTGTAA |
| 6137 | PTEN | ACGCCTTCAAGTCTTTCTGC |
| 6138 | PTEN | GTATGCTGATCTTCATCAAA |
| 6139 | PTGER1 | GTCCGCCTCGTCCATCGCTT |
| 6140 | PTGER1 | AGCGCGGGCGAAGCGCCCGA |
| 6141 | PTGER1 | GGTGTACATCCTACTGCGCC |
| 6142 | PTGER1 | CGCAGTAGGATGTACACCCA |
| 6143 | PTGER1 | TAGCGGCCCACGCGCGCCAG |
| 6144 | PTGER1 | GTGCAACACGCTCAGCGGCC |
| 6145 | PTH1R | CCAGTGCGAAAAACGGCTCA |
| 6146 | PTH1R | TGGACATCTGCGTCCACATC |
| 6147 | PTH1R | AGATGACGTCATGACTAAAG |
| 6148 | PTH1R | CTTGTCTGATTCCATTATGC |
| 6149 | PTH1R | CACAGGGCGCCCCTGTCTGC |
| 6150 | PTH1R | TTGAAGTCATAAATGTAGTC |
| 6151 | PTPN11 | GAGACTTCACACTTTCCGTT |
| 6152 | PTPN11 | TACAGTACTACAACTCAAGC |
| 6153 | PTPN11 | GTTACTGACCTTTCAGAGGT |
| 6154 | PTPN11 | GTGCAGATCCTACCTCTGAA |
| 6155 | PTPN11 | AAGGAACTGAAATACGACGT |
| 6156 | PTPN11 | ACGGAAAGTGTGAAGTCTCC |
| 6157 | PTPN12 | GGCCTGCCGAGAATTTGAGA |
| 6158 | PTPN12 | CAAGAACAGACTACTTCATC |
| 6159 | PTPN12 | ATATAGTCTGAATCTTGTGA |
| 6160 | PTPN12 | CCCTTCCCATCTCAAATTCT |
| 6161 | PTPN12 | TCTTTAATGTCAATTTAACT |
| 6162 | PTPRH | AACAGCCACCAACGTCACCG |
| 6163 | PTPRH | TCCAGTGCACTGAACGCAGT |
| 6164 | PTPRH | ACCTACTGCGTTCAGTGCAC |
| 6165 | PTPRH | GTTCAGTGTACTGGAGACGG |
| 6166 | PTPRH | GTTCTGTGGGTCTGGGCCGT |
| 6167 | PTPRH | CCCGGGTTCAAGTCCATCCA |
| 6168 | PTPRJ | CAGGCTCTAACCCGACAAGC |
| 6169 | PTPRJ | CTTCCGTGTCTCGGGACTGC |
| 6170 | PTPRJ | AATATCTCGGGCCTGAAGCC |
| 6171 | PTPRJ | CGCGCGGGGCATGAAGCCGG |

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|---|---|---|
| 6172 | PTPRJ | CAGCCTTCCTCACACCCGTG |
| 6173 | PTPRJ | CGGCTGCCTCCGCGCTCGCC |
| 6174 | PTPRR | TCTCCCATAAACCGAAAAAC |
| 6175 | PTPRR | GGCGATTGATGTGCACTTGC |
| 6176 | PTPRR | AGCTGAACATAACCTTGCTT |
| 6177 | PTPRR | TGAACGAAGAACTTCCTCAG |
| 6178 | PTPRR | CATGCAGTCAATTTCCAAAC |
| 6179 | PTPRR | CATCAAAGTTTATCCCAGTT |
| 6180 | PUSL1 | TGAATTCCGTGGAGCCGGTC |
| 6181 | PUSL1 | CTCCACGGAATTCAGCCGCT |
| 6182 | PUSL1 | CTCCGCCATGAGTTCGGCGC |
| 6183 | PUSL1 | CACAAGATAGCGCGCGCGCA |
| 6184 | PUSL1 | ACGTGGCTGCGTGACGAGCG |
| 6185 | PUSL1 | ACACCGGCAGCTCATCACGC |
| 6186 | PYCARD | CATGTCGCGCAGCACGTTAG |
| 6187 | PYCARD | CGCTAACGTGCTGCGCGACA |
| 6188 | PYCARD | CGAGGGTCACAAACGTTGAG |
| 6189 | PYCARD | CCCTCGCGATAAGCGCAGCC |
| 6190 | PYCARD | GGCTCTGGAGCCGCGCCAGC |
| 6191 | PYCARD | CCTGGCTTGGCTGCCGACTG |
| 6192 | RAB18 | CTGTGCACCTCTATAATAGC |
| 6193 | RAB18 | TTAACTCCCAGCTATTATAG |
| 6194 | RAB18 | GACATAGTAAACATGCTAGT |
| 6195 | RAB18 | TCTTTAAGGTGTTGACTTTA |
| 6196 | RAB18 | AAGAGATACATTTGTTAAAC |
| 6197 | RAB18 | AATTTCAGTGGATGGAAATA |
| 6198 | RABL3 | ATGACCAACGACGCAAGTTT |
| 6199 | RABL3 | CCTCCCAAAACTTGCGTCGT |
| 6200 | RABL3 | TTAGTCCCTATTACCAACAG |
| 6201 | RABL3 | GTATTCTACAACTCCGTAAA |
| 6202 | RABL3 | CAGTCCTAGTTAAAACTTCA |
| 6203 | RABL3 | CCTATGCCAAAATCAAGTGC |
| 6204 | RAC1 | AATCCTTACTGTTTGCGGAT |
| 6205 | RAC1 | ATTTGAAAATGTCCGTGCAA |
| 6206 | RAC1 | CAATCGGCTTGTCTTTGCCC |
| 6207 | RAC1 | TACTAGGTTGGAGAAACGTA |
| 6208 | RAC1 | ACAGTAGGGATATATTCTCC |
| 6209 | RAC1 | TACACAACCAATGCATTTCC |
| 6210 | RAD1 | GAATAGATACCTTACAAGAT |
| 6211 | RAD1 | GTAATCAGACCCAAGTCAAC |
| 6212 | RAD1 | TAAGAACTGACCTGTTGACT |
| 6213 | RAD1 | TTCATAGGCTGGAATATTTC |
| 6214 | RAD1 | TATCTTGTAAGGTATCTATT |
| 6215 | RAD1 | TGCTGCAGAAATCAAAGTCC |
| 6216 | RAD17 | AAATTGAAGAAGTCGAAACC |
| 6217 | RAD17 | TTCAAGGGGATGTTTAATAC |
| 6218 | RAD17 | CTGCTGCTTTCTAATGTAGA |
| 6219 | RAD17 | AGATTTCCAGCGAGAAAAAG |
| 6220 | RAD17 | TAAACCATAAATCTGTTCTA |

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|---|---|---|
| 6221 | RAD17 | TCTTCCTTAGAACAGATTTA |
| 6222 | RAD51 | ATGTTTGGAGAATTCCGAAC |
| 6223 | RAD51 | TGTTGCCTATGCGCCAAAGA |
| 6224 | RAD51 | TCTCATAGGTATGGTCTCTC |
| 6225 | RAD51 | TACGCTAGCTGTCACCTGCC |
| 6226 | RAD51 | AGGCAACAGCCTCCACAGTA |
| 6227 | RAD51 | TTATCAAGCATCAGCCATGA |
| 6228 | RAD52 | AGAATACATAAGTAGCCGCA |
| 6229 | RAD52 | GGCGGCTCAGTGTTATGCTT |
| 6230 | RAD52 | ATTGTAACCAAACATCTCAT |
| 6231 | RAD52 | ACTGAGCCGCCGCCAGCAGC |
| 6232 | RAD52 | TTTCTAGGTGTGCTACATTG |
| 6233 | RAD52 | TCTGGCCTCCGCCAGCCATG |
| 6234 | RAD54B | ACATTAGATCCACCTCATAC |
| 6235 | RAD54B | TGCAGCACCAAGTCAGTTGC |
| 6236 | RAD54B | GAATTCCCCTGCAACTGACT |
| 6237 | RAD54B | GCAGTCTTACCTGTATGAGG |
| 6238 | RAD54B | CAACACTGAAATATTTAACT |
| 6239 | RAD54B | TAAAGAAGTAGCAGTGTCCA |
| 6240 | RAD9A | GGTAGAGCTCGTCCCCGATG |
| 6241 | RAD9A | GCGCTGTAAGATCCTGATGA |
| 6242 | RAD9A | AGCGGGAGGAGTTCACCGTC |
| 6243 | RAD9A | GGCACTGGCTGGTGACGCTC |
| 6244 | RAD9A | AGACACCGACTCGCACTCCC |
| 6245 | RAD9A | ACCTCACCCGGAATTCCTTG |
| 6246 | RAE1 | CGTACCGCATAAATGTCCTG |
| 6247 | RAE1 | TCGATCGTCAAATCCTATGA |
| 6248 | RAE1 | TGTTACTACAGGTTCGCTGC |
| 6249 | RAE1 | AGACAACCAATGCTATCATC |
| 6250 | RAE1 | TTTAAATGTCATCGATCTAA |
| 6251 | RAE1 | AAGGTGTTACTGTGCTGACG |
| 6252 | RAF1 | GTAAAAAAGCACGCTTAGAT |
| 6253 | RAF1 | CAGCGCCGGGCATCAGATGA |
| 6254 | RAF1 | GCTTGGAAGACGATCAGCAA |
| 6255 | RAF1 | ACTGATGCTGCGTCTTTGAT |
| 6256 | RAF1 | ATCCACACCTAATGTCCACA |
| 6257 | RAF1 | GTGCTGACCATGTGGACATT |
| 6258 | RAI2 | GGGAGGCTCGGATTTCCGGT |
| 6259 | RAI2 | TTCAGCCTTGACTTCGCCGC |
| 6260 | RAI2 | AGCTGATCACCACCGAGGCC |
| 6261 | RAI2 | GTCAGTGGAGTTGATGTTCC |
| 6262 | RAI2 | GCACCAGAGCTCAATCCGAA |
| 6263 | RAI2 | ACAGGCAAGGGGACGATTAC |
| 6264 | RALA | TCTACAGTTCATGTACGATG |
| 6265 | RALA | CTGTATCTAAGATATCGATC |
| 6266 | RALA | AGAGACAACTACTTCCGAAG |
| 6267 | RALA | AACACGAGCTAATGTTGACA |
| 6268 | RALA | AGCCAAAGAATTCTGACCCT |
| 6269 | RALA | AGAAATTCGAGCGAGAAAGA |

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|---|---|---|
| 6270 | RAMP2 | GCGACTGGGCCATGATTAGC |
| 6271 | RAMP2 | CAATCTCGCAGGGTGCTATA |
| 6272 | RAMP2 | TCAAATGGATCCTATCGAAA |
| 6273 | RAMP2 | TAGCACCCTGCGAGATTGCC |
| 6274 | RAMP2 | CCGGCGGCCCGCGTCTCCCT |
| 6275 | RAMP2 | GCGCTGCCGGCCGCCCGACT |
| 6276 | RAP1A | GTCCACGTTTAACGACTTAC |
| 6277 | RAP1A | ACAGTGTATGCTCGAAATCC |
| 6278 | RAP1A | TTGTATATGAAGAACGGCCA |
| 6279 | RAP1A | TTACTGTCCCTGCAGTATCC |
| 6280 | RAP1A | CCCACAGGTTCCAATGATTT |
| 6281 | RAP1A | CCAGACAGTTCAGTTTGTTC |
| 6282 | RAP1B | GATAGAAGATTCTTATAGAA |
| 6283 | RAP1B | TAGGTTCCAATGATTCTTGT |
| 6284 | RAP1B | CAGACTGTACAATTTGTTCA |
| 6285 | RAP1B | ATCAAAAATAAATGTTAATG |
| 6286 | RAP1B | ACAGTGTATGCTTGAAATCT |
| 6287 | RAP1B | CTCGAAGAATCTGTTCTCTC |
| 6288 | RAP2A | CGGTCACGAACTGCACGGTC |
| 6289 | RAP2A | GACGATGCGCGAGTACAAAG |
| 6290 | RAP2A | AGAGAAGTATCGTCCAGCGA |
| 6291 | RAP2A | TTCCGCTAAGAGTAAAACAA |
| 6292 | RAP2A | CCCTCGCTCACCGCTTCACG |
| 6293 | RAP2A | GAAATACGACCCCACCATCG |
| 6294 | RAPGEF1 | GGGCGCGACCTCTTCATCCG |
| 6295 | RAPGEF1 | TTATCAACCACCCGAATGCC |
| 6296 | RAPGEF1 | GCCTCGCCAACCTCATTCGC |
| 6297 | RAPGEF1 | TTGGTACACTCGGCTATAGC |
| 6298 | RAPGEF1 | ATCTTTACGGACACCTCAGC |
| 6299 | RAPGEF1 | CAAGAGAACGCCATCAAAGA |
| 6300 | RAPGEF5 | TCTTGTGCGTCTAACATCTG |
| 6301 | RAPGEF5 | GATCTATGGCCATAGGAGTC |
| 6302 | RAPGEF5 | CAAGTAGCTACATTCATCAG |
| 6303 | RAPGEF5 | GACATGGGAATTATGTTATC |
| 6304 | RAPGEF5 | TATCTTGAAAGTATAGATGC |
| 6305 | RAPGEF5 | AATTTCATCACTGCTTTCTT |
| 6306 | RAPGEFL1 | TACGTGTTCCACGGGGAGCG |
| 6307 | RAPGEFL1 | CTCATAGCTGTCCCGAGTAC |
| 6308 | RAPGEFL1 | CCGCCGGGAGACGGCCAACT |
| 6309 | RAPGEFL1 | GGGGGCCGGCCACATCATCA |
| 6310 | RAPGEFL1 | GCCACCTGTTTGCCTGTACT |
| 6311 | RAPGEFL1 | CCAGGCCCACCTTGATGATG |
| 6312 | RARRES1 | TTGGAAGCTCTTACGTGATG |
| 6313 | RARRES1 | ACAGGTGTCACACTACTACT |
| 6314 | RARRES1 | CACAGAGCGCTACAACCCAG |
| 6315 | RARRES1 | CCGTGTACAAGTTACATTGA |
| 6316 | RARRES1 | AGGTATGCTGACTATTTCCA |
| 6317 | RARRES1 | GTTCCAGATTAATCCAAAAG |
| 6318 | RARRES2 | GACCAGTGTGGAGAGCGCCG |

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|---|---|---|
| 6319 | RARRES2 | GCGACGGCTGCTGATCCCTC |
| 6320 | RARRES2 | CTATGGGGCAGTGGACCAAC |
| 6321 | RARRES2 | CCAGTGCTGGCTTAGCTGCG |
| 6322 | RARRES2 | CCCTTCTTACCCGCAGAACT |
| 6323 | RARRES2 | ATTGGGCCTGACTTTGCACT |
| 6324 | RASAL2 | CCTGAGATACTCCGTCTACG |
| 6325 | RASAL2 | CCTCGTAGACGGAGTATCTC |
| 6326 | RASAL2 | CCTACACCGAGACAACAACG |
| 6327 | RASAL2 | CCGCTCCCACGTTGTTGTCT |
| 6328 | RASAL2 | ATTAACTAGATACCTGTGGA |
| 6329 | RASAL2 | AACTGTCAGTGTCCCTTCCG |
| 6330 | RASEF | TCAATACCTCTTCACCGCAA |
| 6331 | RASEF | ATTTGGCCATTGCGGTGAAG |
| 6332 | RASEF | CGTCAGTATGAAACTGAAGT |
| 6333 | RASEF | CAGTTTCATACTGACGTCTG |
| 6334 | RASEF | ACTGCATAGCTGCCTTGTCC |
| 6335 | RASEF | GGAAATGGATCAGAGGATTC |
| 6336 | RB1 | TGTTCGAGGTGAACCATTAA |
| 6337 | RB1 | ACTCCTGTTCTGACCTCGCC |
| 6338 | RB1 | ATATGGTTCTTTGAGCAACA |
| 6339 | RB1 | AACATCTAATGGACTTCCAG |
| 6340 | RB1 | TTCAGGGGAAGTATTACAAA |
| 6341 | RB1 | AGTCCAAGAGAATTCATAAA |
| 6342 | RBBP4 | GACCTTGTCAGCTGATCCTG |
| 6343 | RBBP4 | CATTTAAGACCATCTGCCTG |
| 6344 | RBBP4 | CAGTGTGAGCATCAACTGAG |
| 6345 | RBBP4 | CTACTCCATGAGTCTCTGTT |
| 6346 | RBBP4 | AGTAAGTGCCCACTGAGATT |
| 6347 | RBBP4 | AACCCAGACTTGCGTCTCCG |
| 6348 | RBBP7 | AGATGACGACCTGTACGTAC |
| 6349 | RBBP7 | CGCGCAGCCCCTGTACGTAC |
| 6350 | RBBP7 | CTGCTGCACGAGTCATTGTT |
| 6351 | RBBP7 | ACCTTAAATCCCACACATTC |
| 6352 | RBBP7 | CTGACCGCCGCCTGAATGTG |
| 6353 | RBBP7 | TCCCCAGCACTAGCCAATGA |
| 6354 | RBM6 | TCTCGACCTGCTAACAGAAC |
| 6355 | RBM6 | AAAGGTCCAGTTCTGTTAGC |
| 6356 | RBM6 | TGGGTTCTTGCAGAATGAAC |
| 6357 | RBM6 | TTACAGTGTAAGGCAAACAT |
| 6358 | RBM6 | CCAGGGTAACTTCTTTGTCC |
| 6359 | RBM6 | CCAGGACAAAGAAGTTACCC |
| 6360 | RBMXL1 | ATCTCTACTCAAGTTGTGAC |
| 6361 | RBMXL1 | CGTAGTGCTCCACTTACACG |
| 6362 | RBMXL1 | GGCTTCCCCCTTCTGTAGAA |
| 6363 | RBMXL1 | GGGTACCCCCTTTCTACAGA |
| 6364 | RBMXL1 | CTGCTGCGAACTAGTCCTGA |
| 6365 | RBMXL1 | TCCATGTGTCCTCCTCGTGA |
| 6366 | RBX1 | CAGAAGAGTGTACTGTCGCA |
| 6367 | RBX1 | AACACGACAGGTGTGTCCAT |

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|---|---|---|
| 6368 | RBX1 | GTTATCAACCACAATATCCC |
| 6369 | RBX1 | ACTTCCACTGCATCTCTCGC |
| 6370 | RBX1 | ACTTACAAAGATCCATAATG |
| 6371 | RBX1 | GTCTTTCAGGTATGGGCACT |
| 6372 | RC3H2 | CCCCTTGCTGTCGCAAATCT |
| 6373 | RC3H2 | TGCCGAGATTTGCGACAGCA |
| 6374 | RC3H2 | GTACCAGAACTTTCCTTGAG |
| 6375 | RC3H2 | GTAGCTGCTACATTACTTAC |
| 6376 | RC3H2 | GTCCCACAGTACCCACAGAC |
| 6377 | RC3H2 | ACTAGAACCAAGATTTCCTC |
| 6378 | RCBTB1 | CTGTAGAACCTGATCCCACT |
| 6379 | RCBTB1 | CCAAGGCATTGCTCCCGTCC |
| 6380 | RCBTB1 | CATGTTCTTCTCAGCACCGA |
| 6381 | RCBTB1 | GCCATTGTCCAGAACAGCCA |
| 6382 | RCBTB1 | CACAATGGATATAGCCAGCT |
| 6383 | RCBTB1 | TCGGTGCTGAGAAGAACATG |
| 6384 | RCHY1 | ACTAGATCGCTTTAAAGTGA |
| 6385 | RCHY1 | CATTGTTATCATGACACAAG |
| 6386 | RCHY1 | TGCCTAGCTATGAATCTTCA |
| 6387 | RCHY1 | GTTGCTCATGTCTTGCCATG |
| 6388 | RCHY1 | CAAGACATGAGCAACAACAC |
| 6389 | RCHY1 | TTCCTTGAAGATTCATAGCT |
| 6390 | RELL2 | CGTCCCTGACGGACAAGTGG |
| 6391 | RELL2 | TGTCCGTCAGGGACGCTCCA |
| 6392 | RELL2 | CTAACCCCTCGTGCACTTGA |
| 6393 | RELL2 | GGTTCCCTTCAAGTGCACGA |
| 6394 | RELL2 | TGAGGACGATGACATGAATG |
| 6395 | RELL2 | TCTTCCCTCAGCCAATGCTG |
| 6396 | RELT | CGATGGCGATGACCGCGTAC |
| 6397 | RELT | CTACCACTGCACGGCGCACA |
| 6398 | RELT | CTCGAGTTGCCATGCCCACC |
| 6399 | RELT | CTGCATAATGTGCCCTGCCC |
| 6400 | RELT | TGAAGCCAAGTCTGCTGTGC |
| 6401 | RELT | CCAGCTCACCATAAGGAAGC |
| 6402 | RERE | AGTACCATTTGACGTTCATG |
| 6403 | RERE | ATCTCCTCATGAACGTCAAA |
| 6404 | RERE | CAACAATAGTGCCACCGCAG |
| 6405 | RERE | AAAAAAAGTCTCGTTATGAA |
| 6406 | RERE | ACTGTGTGTATATCGAGAGT |
| 6407 | RERE | TGAATGCTACAGATGAAATA |
| 6408 | RERGL | TTTCTTACTAAGCGATTCAT |
| 6409 | RERGL | AGATCTTTGTCATGTGCGAG |
| 6410 | RERGL | TAGTAAGAAACCTCACTGTA |
| 6411 | RERGL | CCCTCACAAGTGAGCTTCAC |
| 6412 | RERGL | AAGCGCTGATCTACAGAATC |
| 6413 | RERGL | CTATAAGAAGCACTTGTGTT |
| 6414 | RET | ATCTCCTCGCTGCAGTTGTC |
| 6415 | RET | TCCGGTGGCCGGTCTTCAGA |
| 6416 | RET | GTCCCGAGATGTTTATGAAG |

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|---|---|---|
| 6417 | RET | AGGGTCGGATTCCAGTTAAA |
| 6418 | RET | TTTCCTCACAGCTCGTTCAT |
| 6419 | RET | CACTTACACATCACTTTGCG |
| 6420 | REV3L | GCTCCGAAGACTCGCACCAC |
| 6421 | REV3L | TACCTCTATGTGCCATACGA |
| 6422 | REV3L | TGCTGTCCATAACCATCGTA |
| 6423 | REV3L | GCGAGTCTTCGGAGCGACCC |
| 6424 | REV3L | CTATCTTTACAATCCTACAA |
| 6425 | REV3L | TTCTCATGATAACCATAAAA |
| 6426 | RFC2 | CTCGATAACATTCATCAGCC |
| 6427 | RFC2 | AGACACCGTGAGCAGGCTAG |
| 6428 | RFC2 | GACTGCACAGCGGGACTGAA |
| 6429 | RFC2 | TTTCGCCGTAGGTCTTTGCA |
| 6430 | RFC2 | GACCACAAGCATTCTGTGCT |
| 6431 | RFC2 | TGAAGCATTGAGTTCCAACA |
| 6432 | RFC3 | GACTCACCAGGTTCCGCAGC |
| 6433 | RFC3 | GCCGATACTTGTCCACCCAG |
| 6434 | RFC3 | ACCACCTTGAAGTTAATCCT |
| 6435 | RFC3 | CTTACCTAGGATTAACTTCA |
| 6436 | RFC3 | TGTATTCTACGTGAACTTTA |
| 6437 | RFC3 | TTTCCTCATCTGTTAGTGTA |
| 6438 | RFC4 | TACTAAACCCCCGCTGACCA |
| 6439 | RFC4 | CTCTCCGCTACTTCCCGCAC |
| 6440 | RFC4 | CGCAAGTCGCCCAAAATGTG |
| 6441 | RFC4 | GGTCCGTAAAACAAGAGATT |
| 6442 | RFC4 | TCTAGCTGCTGCCAAAATAG |
| 6443 | RFC4 | GCAACTTCATCCACACATTT |
| 6444 | RFC5 | AGCCCTACGCATGTCTCCAC |
| 6445 | RFC5 | ATTCTGGGCGTCCTGAGTCA |
| 6446 | RFC5 | TTTATATAGCTGTTTCGCAC |
| 6447 | RFC5 | GCACTAGTCACTCTTTCCAG |
| 6448 | RFC5 | GTAGATGTCTTGCCTGTCCC |
| 6449 | RFC5 | GCCCAGAATGCCTTGAGAAG |
| 6450 | RGN | TAGCGACCAATCCAAACCAT |
| 6451 | RGN | CCCGCCGGGAGGTACTTTGC |
| 6452 | RGN | TGGCAACATAGCCTCCCGAC |
| 6453 | RGN | GCATCAATACACATTCCATC |
| 6454 | RGN | ATTCGTTTAGATCCTGTGAC |
| 6455 | RGN | AAATGTATGTGACCTGCGCC |
| 6456 | RHEB | CTACATACCTTTCCATATGC |
| 6457 | RHEB | ATTCTGTTACATCAATCAAA |
| 6458 | RHEB | AAATAGAATACCTATTATGT |
| 6459 | RHEB | CTTCAACTTGTAGACACAGC |
| 6460 | RHEB | TTGACGATTCAATTTGTTGA |
| 6461 | RHEB | GATCGTAGGAGTCCACAAAT |
| 6462 | RHOA | ATCGACAGCCCTGATAGTTT |
| 6463 | RHOA | GCTGCTCTGCAAGCTAGACG |
| 6464 | RHOA | GGCCACTCACCTAAACTATC |
| 6465 | RHOA | TATCGAGGTGGATGGAAAGC |

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|---|---|---|
| 6466 | RHOA | GAGCCGGTGAAACCTGAAGA |
| 6467 | RHOA | GAGCAAGCATGTCTTTCCAC |
| 6468 | RHPN2 | GACCGACGCGCTGTTGCCCG |
| 6469 | RHPN2 | GGCCGCGGGCAACAGCGCGT |
| 6470 | RHPN2 | TCCTCATCCGCACGGCTTTC |
| 6471 | RHPN2 | TGTAATCCCCTTGCACAAAC |
| 6472 | RHPN2 | AGATGAAATTGCAGATCTTA |
| 6473 | RHPN2 | CATCTTCACTGTAATGTTCC |
| 6474 | RIN1 | ACTTGCAGACGTTCCTCGTG |
| 6475 | RIN1 | GGGTGTTAGATTTCCGCACG |
| 6476 | RIN1 | GCGCTCATGGACCGAAGCAG |
| 6477 | RIN1 | GCCGCCGACGACCTCTGCTT |
| 6478 | RIN1 | GGAGCGCCGTAGCTCCTGCA |
| 6479 | RIN1 | CATTGGGCACGTCATACAGT |
| 6480 | RINT1 | GAGGCGCCGATCTCGCCGGC |
| 6481 | RINT1 | CACAGTGTTCATGGCTATCC |
| 6482 | RINT1 | CGTCAACCATCTCTGAAAAC |
| 6483 | RINT1 | GGAGGCGAGATGCTACCAGC |
| 6484 | RINT1 | TGACGAAAGGAAGAACCTCG |
| 6485 | RINT1 | TTCTAGTGCTGCTCTGAAAG |
| 6486 | RMND5A | GTGGAGCACTTCTTTCGACA |
| 6487 | RMND5A | TCACCTCATTGAGAAGCCTT |
| 6488 | RMND5A | CCGCCCTACCGTGGCTCTGC |
| 6489 | RMND5A | CGGCATGGATCAGTGCGTGA |
| 6490 | RMND5A | CAACCCGAGAAACACTGCTG |
| 6491 | RMND5A | GGCCAAGATGCTGAATTATC |
| 6492 | RNASE2 | GAGCTTAGATGATTCTATCC |
| 6493 | RNASE2 | CGTTAGCAAAAGTTGTAAGA |
| 6494 | RNASE2 | CGCAAAAATTGTCACCACAG |
| 6495 | RNASE2 | GTTAATGACCTGCATTGCAT |
| 6496 | RNASE2 | GGGAGGTCATATTGATGTGC |
| 6497 | RNASE2 | ACTGGAACCACCGGATACTG |
| 6498 | RNF139 | GTCTACTACGTTCGTTCAAC |
| 6499 | RNF139 | CGATTCTACACTAACTGTAC |
| 6500 | RNF139 | ATCCGGGTAGGAGTTGAAGA |
| 6501 | RNF139 | TTCCCTTACCAAAGAGCCGG |
| 6502 | RNF139 | CAAAAGACTCGTAGTATGTC |
| 6503 | RNF139 | GATAAGTGCCATCCACAGCG |
| 6504 | RNF151 | CAGTGTCGTTCGTAGAGAGC |
| 6505 | RNF151 | CAGCTCTCTACGAACGACAC |
| 6506 | RNF151 | AAAAGACCTGTCCGTGCTGT |
| 6507 | RNF151 | GAGCACACGAAGTTGCTGTC |
| 6508 | RNF151 | TTCGTGTGCTCCGTCTGCCA |
| 6509 | RNF151 | CATTGGCCGCCTGGAAGTCA |
| 6510 | RNF170 | GATTATAACCGGAGATTCTC |
| 6511 | RNF170 | GAAGTACCCTTACTAGCTCC |
| 6512 | RNF170 | TCGCCAGTAAGCAATAATGC |
| 6513 | RNF170 | ATTACCGTTTGTCTACAGAT |
| 6514 | RNF170 | ACCTTACTCCTAACAGTATT |

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|---|---|---|
| 6515 | RNF170 | AGAACAGCTTCAAACAGAAC |
| 6516 | RNF185 | AGCTGGCATCAGCCGAGACA |
| 6517 | RNF185 | ACACACCTGTCTGTTAGGTC |
| 6518 | RNF185 | CAGTTGGCCGTGTTTACATC |
| 6519 | RNF185 | CATCTTACCTGATGTAAACA |
| 6520 | RNF185 | ACACAGGGATTTCAAGGATT |
| 6521 | RNF185 | TTCCTCACCCCTCTATTCTC |
| 6522 | RNF38 | TCAGAACACTACCGTTCAAG |
| 6523 | RNF38 | CGCACAGCAGCAAGCAATAG |
| 6524 | RNF38 | CCTCACCACCAATGCGACCA |
| 6525 | RNF38 | ATTGCTTGCTGCTGTGCGTA |
| 6526 | RNF38 | AACCTTCTTCTGTTGCGTGC |
| 6527 | RNF38 | CCCTGCTTGTAGTACACAGC |
| 6528 | RNF8 | GAGCGCGTCTGGAACCTTTA |
| 6529 | RNF8 | CCCAGAGTCTAAATGGTGTT |
| 6530 | RNF8 | TCCCAGGTGACTGTAGGACG |
| 6531 | RNF8 | ATTTGGTGTCACATACCAAC |
| 6532 | RNF8 | TTTGCAGCATTGGGCTCTAA |
| 6533 | RNF8 | AGAGCTAAATCGCAGCAAGA |
| 6534 | RNMT | GTACCAATAAAATAGCCCCC |
| 6535 | RNMT | ATTAACAAGCTAGTTTGTAC |
| 6536 | RNMT | CTCATTTGAGTCTTATGAGC |
| 6537 | RNMT | AAAACGTGATATCACTGTTT |
| 6538 | RNMT | TATAACTGCTGACAGCTCAA |
| 6539 | RNMT | CTGTCAAACAGTGTCAGCAG |
| 6540 | ROS1 | GGAATTTAATGACCCAGTGC |
| 6541 | ROS1 | GCTGGAGTCCCAAATAAACC |
| 6542 | ROS1 | GTTAAAACTTCATGCAGCCA |
| 6543 | ROS1 | CTGACATTATATGAAGTATA |
| 6544 | ROS1 | ACTGTTGTTTGCTTCATCTC |
| 6545 | ROS1 | CATACTATATCCTTGAGATA |
| 6546 | RPA2 | GCCGCCGGCTCCCCCGTATG |
| 6547 | RPA2 | GCGGGCGATCCAAAGCCCCC |
| 6548 | RPA2 | TCTAACCTAGGTCACTATTG |
| 6549 | RPA2 | ACTTTACCTGAAAAGATCTC |
| 6550 | RPA2 | GAACACTTCATCAACCAAAG |
| 6551 | RPA2 | AAGCAGCTGAGATATAGTAC |
| 6552 | RPA3 | TACGGGTTCCATCAACTCGA |
| 6553 | RPA3 | GGTTGGAAGAGTAACCGCCA |
| 6554 | RPA3 | GATGAATTGAGCTAGCATGC |
| 6555 | RPA3 | ATAAGATGTACACAAGATGG |
| 6556 | RPA3 | AAATGGAACCATCGAGTTGA |
| 6557 | RPA3 | GACAAGCCTGTCTGCTTCGT |
| 6558 | RPL27A | GGCACTTACCTATGCGGCCG |
| 6559 | RPL27A | ACTATTTGTCGAAGTTGATC |
| 6560 | RPL27A | CCTAGCCACCCAGGCTACTT |
| 6561 | RPL27A | CTAGGGCTACTACAAAGTTC |
| 6562 | RPL27A | CTTAGGGGCCACGTGAGCCA |
| 6563 | RPL27A | TTCACGATGACAGGCTGCTT |

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|---|---|---|
| 6564 | RPS6 | TACTACAGTGCCTCGCCGCC |
| 6565 | RPS6 | TAGACTAACCTTCATTCTCT |
| 6566 | RPS6 | CCTCCTACCTTCTTTATTTA |
| 6567 | RPS6 | AAATCTGAGCGTTCTCAACT |
| 6568 | RPS6 | TACGCCGCCGTTTGTGCTGC |
| 6569 | RPS6 | TACTTTCTATGAGAAGCGTA |
| 6570 | RPS6KA2 | AAGGTGAAGGGGTCCGACGC |
| 6571 | RPS6KA2 | GGACCGAGTGAGATCGAAGA |
| 6572 | RPS6KA2 | GGCGTAGAGCTGCCCAGCGT |
| 6573 | RPS6KA2 | GCAGGAAGAAGGCGTCGTGA |
| 6574 | RPS6KA2 | TCTCCATCTTCGATCTCACT |
| 6575 | RPS6KA2 | AGACATCAGCCATCATGTGA |
| 6576 | RPTOR | CTCCTTGGCGTTGCGACGTA |
| 6577 | RPTOR | GTCCTTACGTCGCAACGCCA |
| 6578 | RPTOR | GACCACGCCCTGTGCACGCT |
| 6579 | RPTOR | CCAGCATTCCAAGCGTGCAC |
| 6580 | RPTOR | ATCAAATCCAGTGTGACGCC |
| 6581 | RPTOR | CATGCAGAAATGTGTCAGTC |
| 6582 | RRM2B | CAATCCAGTACCCTGATATT |
| 6583 | RRM2B | TTACTAAGTATTGGAACATC |
| 6584 | RRM2B | ATTCCAGGTCGACTTATCAA |
| 6585 | RRM2B | TCCTAAGAAAGAGTTCTCGC |
| 6586 | RRM2B | GCTTTAAGCTTGTTCCAGTG |
| 6587 | RRM2B | TGATGCTGTCAAAATTGAGC |
| 6588 | RSBN1 | GCAAGAATATCGGGTACCCC |
| 6589 | RSBN1 | ACGAGACTTATCTGCCGCAT |
| 6590 | RSBN1 | TAAAAGGTGTTTGTACTCCC |
| 6591 | RSBN1 | CCTACCGAGCAGGTCCTATG |
| 6592 | RSBN1 | CTAGCCTCCGACTCCAGTGT |
| 6593 | RSBN1 | GTGATGATGGGCCTATAATG |
| 6594 | RSF1 | ACTATGCGTCTCCAGCCAAT |
| 6595 | RSF1 | CATTGTGATCTTGATCCAAT |
| 6596 | RSF1 | GATGACATCAAAGAAGCCGA |
| 6597 | RSF1 | CACCTAAAGAAAAGAACGCT |
| 6598 | RSF1 | CAAACACATACCTCCTCCAT |
| 6599 | RSF1 | AATCTGTTACTGCAGACAGA |
| 6600 | RSPO4 | ACATGCTCGCCCTGAACCGA |
| 6601 | RSPO4 | CCGCGGATGCCGAAGTACCC |
| 6602 | RSPO4 | TTCCTGTTCATCCGCCGGGA |
| 6603 | RSPO4 | GGGCGAGCATGTCCACGGCG |
| 6604 | RSPO4 | ACTTCTGCATCCGGTGCAAG |
| 6605 | RSPO4 | CTTTGGCCCACCAGAACACA |
| 6606 | RUNDC3B | CAAAGCAAGACCGATCAATC |
| 6607 | RUNDC3B | CATGAGTGCTACTCTGATCC |
| 6608 | RUNDC3B | GACTCAATGCTATTGATTTC |
| 6609 | RUNDC3B | GAAGAAGCAAATATGCTTGC |
| 6610 | RUNDC3B | CTGTGAAGACCCTGATTGAT |
| 6611 | RUNDC3B | TGAGAGACTTCAAAACAACC |
| 6612 | RUVBL1 | ACACCTCTCGCGCGTTCTCC |

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|---|---|---|
| 6613 | RUVBL1 | ACTACTTACCAATGGCCCTG |
| 6614 | RUVBL1 | ATGAGTACCTTGCCAGTTCC |
| 6615 | RUVBL1 | TCCCCTTCTGCCCAATGGTG |
| 6616 | RUVBL1 | GCCTCCCACAGCCACGTGAA |
| 6617 | RUVBL1 | GGAAGAGCTGTCTTGTTGGC |
| 6618 | RUVBL2 | AGCAATAAGGACTGCCCGAC |
| 6619 | RUVBL2 | GGTCGGGCAGTCCTTATTGC |
| 6620 | RUVBL2 | ACTGGGGCTGGACGATGCCT |
| 6621 | RUVBL2 | ACTCAATCATCTTGGTGCCC |
| 6622 | RUVBL2 | CTCTACCTGCCGAGGCTCCA |
| 6623 | RUVBL2 | GTAGATGGTCTCCATCTCTG |
| 6624 | RYBP | CCGTAATTTACACGAATACT |
| 6625 | RYBP | GCGAAACCTGCCGCAGACGA |
| 6626 | RYBP | ACACGCTGCCTACTAATTGT |
| 6627 | RYBP | ACCAGCTGAGAATTGATCCG |
| 6628 | RYBP | TGAGGTGTGATTTGTTTCGC |
| 6629 | RYBP | ATCCCAAAACCCTTCGTCTG |
| 6630 | RYR1 | CTGACAGTGATGACCAGCGC |
| 6631 | RYR1 | GTTCCATAGTGTCTGCATGA |
| 6632 | RYR1 | CAGCACCTGTCGACCGCCAG |
| 6633 | RYR1 | CACGTCCTCCGCCTCTTTCA |
| 6634 | RYR1 | CCGCCCTACCTGATTCTCAG |
| 6635 | RYR1 | CCCCAGACTTGTCTACTATG |
| 6636 | RYR2 | GGCGCGGAACCATGGCCGAT |
| 6637 | RYR2 | CGCTTACAGTTCGCAGGAAC |
| 6638 | RYR2 | CCAGCTTATCAGTTGAAGAC |
| 6639 | RYR2 | TCCCACCTTGGAATTGGAAG |
| 6640 | RYR2 | CCCTTTGCAGGATGATGAAG |
| 6641 | RYR2 | TGTGCTGCCTGTCCACCTCC |
| 6642 | RYR3 | GCACAACGTTTGAGAGGTCG |
| 6643 | RYR3 | GGTGTCATACCTGGTTGGCC |
| 6644 | RYR3 | GAGAAGCTTTGGTTCAACAG |
| 6645 | RYR3 | CTGAGAACTATCACAATATC |
| 6646 | RYR3 | GGCACTGACCTGGAGCTCTC |
| 6647 | RYR3 | TGGGACACAGGGAATGGTGG |
| 6648 | S100A7 | CGCCGATGTCTTTGAGAAAA |
| 6649 | S100A7 | ACCGACTCACACAGGCACTA |
| 6650 | S100A7 | CTCAATCTTGTCATCACGTC |
| 6651 | S100A7 | GCTGGGTCACTGGCTGCCCC |
| 6652 | S100A7 | CTGCTCCATGGCTCTGCTTG |
| 6653 | S100A7 | TGTGGCTATGTCTCCCAGCA |
| 6654 | S1PR2 | CATCGCCATTGAGCGCCACG |
| 6655 | S1PR2 | CGCAGTAGATGCGCACGTAC |
| 6656 | S1PR2 | GATAAAGACGCCTAGCACGA |
| 6657 | S1PR2 | CTCCGATCTACTGGCAGGCG |
| 6658 | S1PR2 | CCACCACAATGGCGCAACAG |
| 6659 | S1PR2 | TAGGCGTCTTTATCGTCTGC |
| 6660 | SAA1 | CTGATCAGGCTGCCAATGAA |
| 6661 | SAA1 | GCCACTCCTGCCCCATTCAT |

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|---|---|---|
| 6662 | SAA1 | CGTGATCACTTCTGCAGCCC |
| 6663 | SAA1 | AGCTTCGGCTGCTGACACCC |
| 6664 | SAA1 | TACCATCAAAAGCCTCGCCA |
| 6665 | SAA1 | TTCCAGGGGCTCGGGACATG |
| 6666 | SAA2-SAA4 | GGATATCATTATGTCCCAAT |
| 6667 | SAA2-SAA4 | AAACGAACGCCAGCTTTCAC |
| 6668 | SAA2-SAA4 | TCTGGGCTGCTAAACTCATC |
| 6669 | SAA2-SAA4 | CCTGGGCTGCAGAAGTGATC |
| 6670 | SAA2-SAA4 | AGCTTCGGCTGCTGACACTC |
| 6671 | SAA2-SAA4 | CCTGATCACTTCTGCAGCCC |
| 6672 | SAA4 | CCCGACCGCTTCAGACCTGA |
| 6673 | SAA4 | TAATCCCTGAAGATAGACCC |
| 6674 | SAA4 | GGATATCATTATGTCCCAAT |
| 6675 | SAA4 | AAACGAACGCCAGCTTTCAC |
| 6676 | SAA4 | TCTGGGCTGCTAAACTCATC |
| 6677 | SAA4 | GAAGTCCAACGAGAAAGCTG |
| 6678 | SAC3D1 | TACTCCTTCACCGCGCGCTG |
| 6679 | SAC3D1 | GGCGGTGCTCCCTTTCGCGC |
| 6680 | SAC3D1 | CACTAACACCTTGCACGTAC |
| 6681 | SAC3D1 | CCTCCACGTAGCGACCCCTC |
| 6682 | SAC3D1 | CGCTGCTGACCGTAGTGGCG |
| 6683 | SAC3D1 | GCACCGCCTGCACCGCTTGG |
| 6684 | SALL1 | GCTCGCCGTCGGGACTGAGT |
| 6685 | SALL1 | AGCCGCCGACCCCGTCGTGC |
| 6686 | SALL1 | TTTCCAATCCGACCCCGAAG |
| 6687 | SALL1 | CCCACCAGTCACGTCCCGTC |
| 6688 | SALL1 | TTTGAGCCAGCATGTCGCGG |
| 6689 | SALL1 | AATAGCACCCCTGCACGACG |
| 6690 | SART3 | GGCCGCCTTTACTCGTGCCT |
| 6691 | SART3 | TAGTTCTGAATTACTGACTC |
| 6692 | SART3 | CTATGACTACAACTGCCATG |
| 6693 | SART3 | CTGAAGCTTACCTTCAGTCA |
| 6694 | SART3 | GTTAGACTCCAGTAAAGAGC |
| 6695 | SART3 | TAAACCCTATGAAGAAGCAC |
| 6696 | SATB1 | AACGGGAGCCCGCTAGGAAG |
| 6697 | SATB1 | GCTTTCAGAAATCCTCCGAA |
| 6698 | SATB1 | ATCTTGGCTGGTGGACCCTT |
| 6699 | SATB1 | AGAAATTCTGCATAGCCCGA |
| 6700 | SATB1 | GCATCTGTCACGTAAGACAG |
| 6701 | SATB1 | ATCTGAAATAGGGCTAATCC |
| 6702 | SATB2 | CAGCGAACGCATGCAACACG |
| 6703 | SATB2 | ACCAACAGATTGCCGTTAGC |
| 6704 | SATB2 | CGTGTTGCATGCGTTCGCTG |
| 6705 | SATB2 | AGCTTAGTCCACAACTTGTA |
| 6706 | SATB2 | TCGGGGCTGTCCCGCAGACA |
| 6707 | SATB2 | GTCTGCGGGACAGCCCCGAC |
| 6708 | SBSN | ACAACCACGCCGTTAGCCTC |
| 6709 | SBSN | GTTCCACACTGGGGTCCACC |
| 6710 | SBSN | GATGAAAGGCGTGTTGACCG |

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|---|---|---|
| 6711 | SBSN | TCATCAACCTTCCCGCCCTG |
| 6712 | SBSN | CAGCAGCATGGTTGACCCCT |
| 6713 | SBSN | TGGTTGTGGCCCCTCCTTGA |
| 6714 | SCAF4 | CGACAGTCTCGTCATCAGTT |
| 6715 | SCAF4 | CGCCGTCAACGCCTTCAACC |
| 6716 | SCAF4 | AGCTGCTATTAAAGCTATTA |
| 6717 | SCAF4 | ACCCCTTACCTCCTGGTTGA |
| 6718 | SCAF4 | GCAGTGTAAACCAGAATACA |
| 6719 | SCAF4 | TTTAGTGATGAGAATCATCT |
| 6720 | SCAMP1 | TTCCCGACGATCTAATTCTG |
| 6721 | SCAMP1 | AAGCCGCAGAATTAGATCGT |
| 6722 | SCAMP1 | TTAGGCATCTTCACACCGCC |
| 6723 | SCAMP1 | GTGACAAGAAATGTTCCACC |
| 6724 | SCAMP1 | TTTGCAATCTGTGTATAAGC |
| 6725 | SCAMP1 | TTATATTCATCAAGTCCTGG |
| 6726 | SCMH1 | GGTTTACGCCCCCTCTGCCC |
| 6727 | SCMH1 | GGTGGGTTCAGCAAAGTCCG |
| 6728 | SCMH1 | AACAACCAGCACTCCTGAAC |
| 6729 | SCMH1 | GGGCTTCTCAGTATTCACAT |
| 6730 | SCMH1 | GAGTCTGCATCCCAATATCA |
| 6731 | SCMH1 | ACTAGAAGCTGCTGACATCC |
| 6732 | SCNN1B | GGGGGTTCCGTTCATCAATA |
| 6733 | SCNN1B | TCTTCGCCGCCCTCGTCTGC |
| 6734 | SCNN1B | ATGATCCTGGCCTGCCTATT |
| 6735 | SCNN1B | CCCCTCACAGATGATGCGCT |
| 6736 | SCNN1B | TGGCTCTCACCGGTAGTTGC |
| 6737 | SCNN1B | AGCTGCTTGTTAAGCCATTG |
| 6738 | SCNN1D | GCTACACGGTCGATGGCGTC |
| 6739 | SCNN1D | GACCGTGTAGCAGCTGCCGT |
| 6740 | SCNN1D | GCTGCCAGCTGCCCCCGCAA |
| 6741 | SCNN1D | GGCCACCATCAGCATCCGAG |
| 6742 | SCNN1D | GCTCACCTCTCGGATGCTGA |
| 6743 | SCNN1D | GAGGTGAGAGCCCCCCCGTG |
| 6744 | SCOC | CAGGCGTGTATTCTCGAGTC |
| 6745 | SCOC | TGAACAAGATGGACGGGTCC |
| 6746 | SCOC | TTCTCACGGCGCACGTTCTG |
| 6747 | SCOC | GCCAACCTTCAAGTGTGTGT |
| 6748 | SCOC | AAGACTTATTAATCAAGTGT |
| 6749 | SCOC | CCTTGGATACAAAATTCTTG |
| 6750 | SDCBP | TCTGCTCCTATCCCTCACGA |
| 6751 | SDCBP | ATAAACCTACTTCCATCGTG |
| 6752 | SDCBP | AGCCACCATATAGTTTATAC |
| 6753 | SDCBP | ACTATACATACCCCCTGAAG |
| 6754 | SDCBP | GGTTTCTGGTGCACCACTTC |
| 6755 | SDCBP | ACAGAATGTCATTGGATTGA |
| 6756 | SDE2 | ATCCCGACAAGCTTCTCGAT |
| 6757 | SDE2 | GGATCTATGCTCCGAGCACT |
| 6758 | SDE2 | AAAACAACAAGCCGAGCGAG |
| 6759 | SDE2 | CCAGACGCTCAGCCATCTCA |

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|---|---|---|
| 6760 | SDE2 | TTCTGCTGAAACCATCTTGC |
| 6761 | SDE2 | CTGTCTGTTTGAGATTTAGT |
| 6762 | SDHA | GCCCATCACCTCGACCACGG |
| 6763 | SDHA | CGGCCTTACCCTTCCATATA |
| 6764 | SDHA | GCAGGCTTGCGAGCTGCATT |
| 6765 | SDHA | GGGCCTGCTCCGTCATGTAG |
| 6766 | SDHA | TATTAAACCCTGCCTCAGAA |
| 6767 | SDHA | TCGCTATTGCACACCTTATA |
| 6768 | SDHAF2 | AGTGTTCTCGACTTCGTCGC |
| 6769 | SDHAF2 | TTAACGAGCCTAGTAATGAC |
| 6770 | SDHAF2 | CGTTAATCAGGCGGTCATAG |
| 6771 | SDHAF2 | TCATTCAGACGCTTCTACAG |
| 6772 | SDHAF2 | CAGCCCAACAGATTCCCAAA |
| 6773 | SDHAF2 | AATATTTGAAAATGAAGTCA |
| 6774 | SDHB | GTCTGGGTCCCATCGATAGA |
| 6775 | SDHB | TCGCCCTCTCCTTGAGGCGC |
| 6776 | SDHB | GGCCGGCAACCGGCGCCTCA |
| 6777 | SDHB | GATTAAAGCATCCAATACCA |
| 6778 | SDHB | AGAAATTTGCCATCTATCGA |
| 6779 | SDHB | CTTTGTTAGATGTGGCCCCA |
| 6780 | SDHC | CTCCCCACATTACTATCTAC |
| 6781 | SDHC | CGGTTCTGGAATAAGAATAT |
| 6782 | SDHC | TACTTTCTGATACAGAGCTG |
| 6783 | SDHC | TTACAGTTGGTCTCTTCCCA |
| 6784 | SDHC | CAAGTGCAAACTTAGCTGTG |
| 6785 | SDHC | ATGTCGGCCCTGTTACTCCC |
| 6786 | SDHD | GAGAACATACAATGGTGGCT |
| 6787 | SDHD | AGTGCCGTTTGCGGTGCCCT |
| 6788 | SDHD | TCTGTTGCTTCGAACTCCAG |
| 6789 | SDHD | TGCCTTGCAGAAAGCTGCCA |
| 6790 | SDHD | GCCAGTGACCATGAAGAGTG |
| 6791 | SDHD | ACCCCTCACCTCGGCCTCCT |
| 6792 | SDS | GTCCATCTTGAGGTAGACGC |
| 6793 | SDS | ATTGGATGAAGCCTTCGAGC |
| 6794 | SDS | GTTGTTCTTCGCTAGGGCCT |
| 6795 | SDS | ATGGGGGTCTTCACGTGCAG |
| 6796 | SDS | AAAATGTGCACAGCCTTGCT |
| 6797 | SDS | TCTCCACAGTGGGCCAAGCA |
| 6798 | SDSL | CGTTTGACCACCCCCTAATA |
| 6799 | SDSL | CAACTCTTGCGCCCTCAGAT |
| 6800 | SDSL | GTGCCAAGACGGTGGCCGCT |
| 6801 | SDSL | GTGCAAGATTCACTCTGAAG |
| 6802 | SDSL | TTTCTGCACAGGGGGTAATG |
| 6803 | SDSL | GGTGCTCTCGGGGAGCACGA |
| 6804 | SEC23B | TGCAATCTTCAGTTCCCGAG |
| 6805 | SEC23B | TACAATTGAGTACGTGATAC |
| 6806 | SEC23B | TCAGATATGCCTCCATAAGC |
| 6807 | SEC23B | TCTCGGGAACTGAAGATTGC |
| 6808 | SEC23B | TTGATTATCGAGCAAAACTT |

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|---|---|---|
| 6809 | SEC23B | TCTTTGAAAACAGAAATTAC |
| 6810 | SEC24B | ACTCTAACGTGGTCATCTCC |
| 6811 | SEC24B | GGGAGGCACTCGTATGCAAA |
| 6812 | SEC24B | GCCCAACAGTTATGATGCCC |
| 6813 | SEC24B | ACTGAGGTCACAGGCTCAAC |
| 6814 | SEC24B | GGGAGGTGTTCTTGTTGATG |
| 6815 | SEC24B | GCATCATAACTGTTGGGCAT |
| 6816 | SEC31B | CGATCTCTTAGCTGCTGAAC |
| 6817 | SEC31B | GGCAGTTACCGAGGAGATTT |
| 6818 | SEC31B | CTGAGTGACCCTGTAGGTTG |
| 6819 | SEC31B | CCGGACCCAGTTCCCCAAGC |
| 6820 | SEC31B | GGGTAGCTCCCACAACAATC |
| 6821 | SEC31B | AGCAACTGCGGGGTCCTCAT |
| 6822 | SEC61A1 | GCTGAATGCCTTCCATACGA |
| 6823 | SEC61A1 | TCATCACATACACGATAGAC |
| 6824 | SEC61A1 | TGTTGTACTGGCCACGGTAG |
| 6825 | SEC61A1 | ATCAAGTCGGCCCGCTACCG |
| 6826 | SEC61A1 | TCTATCGTGTATGTGATGAC |
| 6827 | SEC61A1 | TCGGCCAGTGTTGACAGTAG |
| 6828 | SEC61A2 | GTTATTCTGGCTTCCAATAG |
| 6829 | SEC61A2 | ATCTCCCCAATTGTAACATC |
| 6830 | SEC61A2 | ATCAAACCAGATGTTACAAT |
| 6831 | SEC61A2 | ATAACTCTCATCCAGTAGAA |
| 6832 | SEC61A2 | ACAGATCCAGTTTAGAGAGA |
| 6833 | SEC61A2 | ACAGAACCTTCTCTCTAAAC |
| 6834 | SEC62 | CTGTGGTTGACTACTGCAAC |
| 6835 | SEC62 | ACAGTTGAATCGAAGATACT |
| 6836 | SEC62 | ACTTGAGCCACATGATGATC |
| 6837 | SEC62 | AACAAAGTCCACCAATATGA |
| 6838 | SEC62 | GTAGTCAACCACAGACTCCC |
| 6839 | SEC62 | AGAAAAACCTGATCATCATG |
| 6840 | SEMA5A | CGCTCTGAACTCCCGTAACC |
| 6841 | SEMA5A | TCTGGCACTGAGTCGTACCC |
| 6842 | SEMA5A | GAACAGCCATGCTATAACAC |
| 6843 | SEMA5A | GTTCAGAGCGAAGAATGCTG |
| 6844 | SEMA5A | CCTCAAGCTGTAACCTGAAG |
| 6845 | SEMA5A | TTTGCAGAAACTACCTCTTC |
| 6846 | SEMA6A | GAGCCAATCAGTATTTCGCA |
| 6847 | SEMA6A | TTGCCATGCGAAATACTGAT |
| 6848 | SEMA6A | CGTTCATGATCATAATCATC |
| 6849 | SEMA6A | GGCTTGTGGCCCACAAACAC |
| 6850 | SEMA6A | TGATATAGACACATCACACA |
| 6851 | SEMA6A | CTATATCAACAGTATAAATA |
| 6852 | SESTD1 | TAGAGGATTTACCGTGATTG |
| 6853 | SESTD1 | CATCCATATTTGTCTGTTCG |
| 6854 | SESTD1 | AACAGTAGTCGTAATGCTAC |
| 6855 | SESTD1 | ACTACCTACTCAGCATTCCA |
| 6856 | SESTD1 | CAGAATGGGTAATATTACTG |
| 6857 | SESTD1 | AAAAAACTAGCCTTCCTTTC |

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|---|---|---|
| 6858 | SET | GAGCAGCACCATGTCGGCGC |
| 6859 | SET | CCGGCCGCACCATGTGGCGG |
| 6860 | SET | CTGATGGGAGCGAGGCATCA |
| 6861 | SET | GCTCTCACCTGAGGTCTCGT |
| 6862 | SET | TGTGGCTCACCCAGCAAGGT |
| 6863 | SET | CAGCTTGAAACCTACCTTGC |
| 6864 | SETD2 | AGTTCTTCTCGGTGTCCAAA |
| 6865 | SETD2 | GACTATCAGTTCCAGAGATA |
| 6866 | SETD2 | AACTTACGAAGGAAGGTCTT |
| 6867 | SETD2 | AACGTTAACTCTGAGCCTGA |
| 6868 | SETD2 | ATAATAGATGCCACTCAAAA |
| 6869 | SETD2 | TCATCTCAGTGGACTGTGAA |
| 6870 | SF3A1 | CCATGCCTACTACCGCCACA |
| 6871 | SF3A1 | GGGTAAATAATCCCCACAAC |
| 6872 | SF3A1 | GTAGGCATGGTAAGGGTCAT |
| 6873 | SF3A1 | AGTGATGGGTGGAGCCGAGC |
| 6874 | SF3A1 | CAGCATGGCCCGGACCCAGC |
| 6875 | SF3A1 | TGCACCTTCTAAGCCAGTTG |
| 6876 | SF3A3 | CATCTTGCATGGCCCGAGTG |
| 6877 | SF3A3 | ATGTACAGCGCAAGCAAGCC |
| 6878 | SF3A3 | ACTTTGCCATCCCAGCCAAG |
| 6879 | SF3A3 | CCGCTTGGTGCCCTTTGACT |
| 6880 | SF3A3 | GATCTGTGTGCCAATGTCAG |
| 6881 | SF3A3 | TCCTCAAATTCCACTGACAT |
| 6882 | SFXN2 | TTAACATCGATGCCCCCCGT |
| 6883 | SFXN2 | CCCGTGATGATCATGCCGCC |
| 6884 | SFXN2 | AAGGTGCGCTGGTCCCAACG |
| 6885 | SFXN2 | GGCCGAGTCATACAGCTTCT |
| 6886 | SFXN2 | TGTGTTTAGGGAGCTCATAA |
| 6887 | SFXN2 | GACAGGAATGAAAATGAGAT |
| 6888 | SGK1 | GCTACATGCCTCTGATAAGC |
| 6889 | SGK1 | GCACATTGCAGGTACGAAGG |
| 6890 | SGK1 | CCGCCACAAAAAGAGGGCCG |
| 6891 | SGK1 | TTCTTGGATCGGGCTTGGTC |
| 6892 | SGK1 | CACAAGGAAGACTCGAAGTC |
| 6893 | SGK1 | GCTTACCCAGTCCGCTCAGC |
| 6894 | SGSM1 | GCTACGCACCGTCAAGAAGG |
| 6895 | SGSM1 | CAAGAACTTCCCGCCGGCTG |
| 6896 | SGSM1 | CTGCAATCTTATTGCTGCGT |
| 6897 | SGSM1 | CAGAGGCGGAGACCCGACAG |
| 6898 | SGSM1 | CCTCTTACCCGCGGGGGCCG |
| 6899 | SGSM1 | AGCCATGGCCTCGGCCCCCG |
| 6900 | SH2D1B | AGAGACAGCGAGTCGATACC |
| 6901 | SH2D1B | CTTGCTTGGTCAGACGTCCA |
| 6902 | SH2D1B | GAACAGTAACAGCGATTATG |
| 6903 | SH2D1B | TGAACCACCATCCCCTGATT |
| 6904 | SH2D1B | CGTGTTTCTCTCTGAAGATT |
| 6905 | SH2D1B | TGCAGAAGGTTCTCCAAAAC |
| 6906 | SH2D2A | GGTGCGGTTCAGCGAGAGCG |

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|---|---|---|
| 6907 | SH2D2A | TCACCTGTAAGTCAGCACGA |
| 6908 | SH2D2A | TGCGGGTCATGTCTGTGATC |
| 6909 | SH2D2A | ACCTCCGGGTGATGAAGCCA |
| 6910 | SH2D2A | CACTCACCGCAGTGTAGCCC |
| 6911 | SH2D2A | GGCTTGGTTCCAGAAGACCC |
| 6912 | SH3BGRL2 | CCTACCTTTGATGCCAACCG |
| 6913 | SH3BGRL2 | GATGTACAAAAACGTCCCCC |
| 6914 | SH3BGRL2 | GCTCACCGCCACGAAGCCCG |
| 6915 | SH3BGRL2 | AGCCACTTACTCCACAGTAT |
| 6916 | SH3BGRL2 | GAAACCACGGTTGGCATCAA |
| 6917 | SH3BGRL2 | CGTGTTCATCGCCTCTTCCT |
| 6918 | SH3BGRL3 | CCGACGTGCTGTAGACGCGC |
| 6919 | SH3BGRL3 | CCTGCGCGTCTACAGCACGT |
| 6920 | SH3BGRL3 | GCGCATCCAATACCAGCTAG |
| 6921 | SH3BGRL3 | AGATGTCCACTAGCTGGTAT |
| 6922 | SH3BGRL3 | CCAGGACTATGAGCTCTTCG |
| 6923 | SH3BGRL3 | GCTTGACTCAAGCCAGCTTC |
| 6924 | SH3D19 | ACTTACCTCGGTGGCAACCT |
| 6925 | SH3D19 | TAATCGATCCTCTTCTGACA |
| 6926 | SH3D19 | TTGCAGGAATCCAACCACCC |
| 6927 | SH3D19 | CTACCCCCTCGTCCCAAACC |
| 6928 | SH3D19 | CTCCCTGCTGAAAAACCTAT |
| 6929 | SH3D19 | GTACTGAAAGTGTTTCCAAT |
| 6930 | SHMT1 | CACCCGAAGCTGATCATCGC |
| 6931 | SHMT1 | TCAGGTGGCCCCCATCCGGA |
| 6932 | SHMT1 | TTTCGCCAGCCGAGCAGTTT |
| 6933 | SHMT1 | GGAACCCCATGGGCGCATCA |
| 6934 | SHMT1 | TCACCTGCGATGATCAGCTT |
| 6935 | SHMT1 | TCGGCTGGCGAAATTCTCCG |
| 6936 | SHMT2 | AGCACTCACGTTGAGCTTAT |
| 6937 | SHMT2 | GTTGCTGTGCTGAGCCCGAA |
| 6938 | SHMT2 | CGAGTACTTGTTGTTCAGAC |
| 6939 | SHMT2 | CTTCTGCAGCCGAGCTGCGC |
| 6940 | SHMT2 | TGACGTCAGACATGTAGCCG |
| 6941 | SHMT2 | TCCCACGGCAGATACTATGG |
| 6942 | SHPRH | CTCAACACAGGGATCAATGC |
| 6943 | SHPRH | CGAGAGATTGTTACATCTGA |
| 6944 | SHPRH | CTCTACTATAATCCATATAC |
| 6945 | SHPRH | TCGTCAATGTCTTGTCCCTC |
| 6946 | SHPRH | TTACACAATTCTATTATTCC |
| 6947 | SHPRH | TCAGCTCATGAAGAAAGTAA |
| 6948 | SI | AACCTTGAACCGGAAACGAT |
| 6949 | SI | ATCAGACACCCAATCGTTTC |
| 6950 | SI | TGATACGTTGTATGATGTGA |
| 6951 | SI | ACCTCTGTTGGGAATTGTTC |
| 6952 | SI | TTATCAACGAAGAAGCACCA |
| 6953 | SI | GTAGTCACACGAGTAGTAGC |
| 6954 | SKA3 | AGTTCTACCAAACCCTCCAC |
| 6955 | SKA3 | AGGCCATAGATACAGAATCC |

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|---|---|---|
| 6956 | SKA3 | TTATAGTTGTTCACTGCCTG |
| 6957 | SKA3 | CCACGTGTCAAGAAAAATTC |
| 6958 | SKA3 | AAAAACATTATCATTGAGCC |
| 6959 | SKA3 | TCTTCTTGATAAAGCAAGAT |
| 6960 | SLC10A6 | CTTCAGATTGGGGCCGTTGT |
| 6961 | SLC10A6 | CTTCTGGTGGTCGCAGTTGC |
| 6962 | SLC10A6 | TATGACAACCTGTTCCACCG |
| 6963 | SLC10A6 | ACCATTCCTTATCAGAACAT |
| 6964 | SLC10A6 | GTAATTCACATAGACACCAA |
| 6965 | SLC10A6 | TGTGTGCCTGACCATTCCTG |
| 6966 | SLC11A1 | TGCACCCACCGTAGTTATCG |
| 6967 | SLC11A1 | CCAGACGTGCAGCCAGTCGC |
| 6968 | SLC11A1 | TTCCTCTTCCTCGATAACTA |
| 6969 | SLC11A1 | TGGACTCCTTATAACCATTA |
| 6970 | SLC11A1 | GGGCTTGCTCTGCCAGCGAC |
| 6971 | SLC11A1 | CTCCGTAGGGCTGCGGAAGC |
| 6972 | SLC11A2 | TGAGAAGATCTCCATTCCTG |
| 6973 | SLC11A2 | TACTTACTTAGTTCACAGTG |
| 6974 | SLC11A2 | CATGGGGAGTCTGCCAGTCT |
| 6975 | SLC11A2 | CCATCTGACATCTTCTGTTC |
| 6976 | SLC11A2 | CCTGAACAGAAGATGTCAGA |
| 6977 | SLC11A2 | CTTCAGCTGCTTCTTCCTCA |
| 6978 | SLC12A2 | CATAGCAACTGCAACAGCGT |
| 6979 | SLC12A2 | TACGTTGTATGTTAAACATT |
| 6980 | SLC12A2 | ATACGTGACCACAGCATCTC |
| 6981 | SLC12A2 | CCAATTGCACCACCAAATTC |
| 6982 | SLC12A2 | CGTGAAGTTTGGCTGGATCA |
| 6983 | SLC12A2 | ATTGTGGGTCAAGCTGGAAT |
| 6984 | SLC12A7 | CGGCAGGTAGACGCCGATGA |
| 6985 | SLC12A7 | TCTGTCGCAGGCTCCGCGCA |
| 6986 | SLC12A7 | GTCCTCGCTGCTCAACAAGC |
| 6987 | SLC12A7 | GGCCAGCTTGTTGAGCAGCG |
| 6988 | SLC12A7 | ATGAGTGCGATCGCTACCAA |
| 6989 | SLC12A7 | AGCGATCGCACTCATGGAAA |
| 6990 | SLC16A12 | AGCCGTCTCCGTTCTGTTTA |
| 6991 | SLC16A12 | GCTTATGGTATCGCCATGTC |
| 6992 | SLC16A12 | GACTCGTGGCAAATGAGCTC |
| 6993 | SLC16A12 | GGTGGCTTGCTTGCATCTAC |
| 6994 | SLC16A12 | ACTCTTCCAAGATCATAACT |
| 6995 | SLC16A12 | CAACAGCCAAGTTATGATCT |
| 6996 | SLC18A2 | CTATTATGATAACTCGACTA |
| 6997 | SLC18A2 | TGCAGGAGAGCCGCCGCTCG |
| 6998 | SLC18A2 | GATGCAGAATCCCGCAAATA |
| 6999 | SLC18A2 | CATAGTCGAGTTATCATAAT |
| 7000 | SLC18A2 | ACAGGATGAGCTTCCGCGAG |
| 7001 | SLC18A2 | CTATCCAATTCCCATATTTG |
| 7002 | SLC22A11 | CAAAAGCGGCCACGAACCGC |
| 7003 | SLC22A11 | CCGCAGTAGATGACGAATGT |
| 7004 | SLC22A11 | CATGGCGTTCTCGAAGCTCT |

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|---|---|---|
| 7005 | SLC22A11 | TCCTGGTGGGCTCCTTTATC |
| 7006 | SLC22A11 | CTGGAAGAGGCCCACGCCTC |
| 7007 | SLC22A11 | AGCCAGTCCATCTTCATGTC |
| 7008 | SLC22A2 | CCATTTCCCCAACCTATACG |
| 7009 | SLC22A2 | GGTGCATACCTGAGTCTCCC |
| 7010 | SLC22A2 | GCGGAGATATCGGAGAACAG |
| 7011 | SLC22A2 | AAGCCACCCCAGCTAGCACC |
| 7012 | SLC22A2 | ATCTCTACCCGCCTCCCTTC |
| 7013 | SLC22A2 | AAAAATTAACATCCACGTAT |
| 7014 | SLC25A11 | ACCGGCCATCGGCAGTCATG |
| 7015 | SLC25A11 | CTTATCCGCATGACTGCCGA |
| 7016 | SLC25A11 | ACGCCCTGATTCGAATCACC |
| 7017 | SLC25A11 | CTTCCCGGGTGATTCGAATC |
| 7018 | SLC25A11 | CTTCCCCGCTCAACTGCATC |
| 7019 | SLC25A11 | GACGACGACGGCCCGAGCCA |
| 7020 | SLC25A22 | ACTTCAGCGAGGCGTCAACG |
| 7021 | SLC25A22 | ACATGCTCGTGTACACGCGC |
| 7022 | SLC25A22 | GATGCCGCCATTGATGAGCT |
| 7023 | SLC25A22 | TGACGCCTCGCTGAAGTGAC |
| 7024 | SLC25A22 | GTACATGCCGAAGTAGCCCT |
| 7025 | SLC25A22 | CATCAAGACCGTCCGCTCCG |
| 7026 | SLC25A48 | GGCCTCTTACCGTCCCGAAA |
| 7027 | SLC25A48 | GGGTCTTCAGTAACACGCAG |
| 7028 | SLC25A48 | CTCTCCATAGACTCGCCTGC |
| 7029 | SLC25A48 | CGTAGCCAACGCCAGCCTGC |
| 7030 | SLC25A48 | GGTGCAGCCAGTGTCATCGT |
| 7031 | SLC25A48 | TGTACCTTGACTGTGTCCAG |
| 7032 | SLC28A3 | CAACTCTTCGGCACATCATC |
| 7033 | SLC28A3 | ATCAATTCGATGTTCGTATT |
| 7034 | SLC28A3 | GCCACGGTGATCACAAAAAG |
| 7035 | SLC28A3 | CTTGAGAACGAGAACACATC |
| 7036 | SLC28A3 | ACACAGTATGTGGTTTCTGT |
| 7037 | SLC28A3 | GATGAGGAGATGCAACAAAA |
| 7038 | SLC2A1 | CTTCGTGTCCGCCGTGCTCA |
| 7039 | SLC2A1 | AGGCTTCGTGCCCATGTATG |
| 7040 | SLC2A1 | CCTCGTTGCGGTTGATGAGC |
| 7041 | SLC2A1 | GCTGACGGGTCGCCTCATGC |
| 7042 | SLC2A1 | CTCCTACTTACCGGCCAAAG |
| 7043 | SLC2A1 | TGCCCGTACCACTCTTGGCC |
| 7044 | SLC30A9 | CCCTGTAGTCATCCATATAT |
| 7045 | SLC30A9 | ACCAATATATGGATGACTAC |
| 7046 | SLC30A9 | CAGAGAGAAAAAATTGCGTA |
| 7047 | SLC30A9 | CAAGAACCTCTCCAAGTAAG |
| 7048 | SLC30A9 | TATTTACCTCTTACTTGGAG |
| 7049 | SLC30A9 | TGCACAGATCTTTGGAAGTT |
| 7050 | SLC35A3 | CTGAAGAACAACTACTATCC |
| 7051 | SLC35A3 | CTGGATAGTAGTTGTTCTTC |
| 7052 | SLC35A3 | TCAGCTGGTTCTCAATTTGT |
| 7053 | SLC35A3 | GCAAGTTTAAGTGTTTCCAT |

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| 7054 | SLC35A3 | CTTAAACTTGCTATTCCATC |
| 7055 | SLC35A3 | AGATTCTCAGCTTGATTCTA |
| 7056 | SLC35F1 | CGGCATCGTTGTCTGCATCC |
| 7057 | SLC35F1 | CTTCCTGCTGATCCGGTACA |
| 7058 | SLC35F1 | GCCAGCCCCGCCGAACCATG |
| 7059 | SLC35F1 | ATCTTCGTCGTAAAATTGCC |
| 7060 | SLC35F1 | GGATCCGCAAAGTGCTGAAC |
| 7061 | SLC35F1 | TACTGGTCAGAGTTGTGTAT |
| 7062 | SLC35G5 | CTCGGTGGCTACGAGTGGTG |
| 7063 | SLC35G5 | ACTCGTAGCCACCGAGACCC |
| 7064 | SLC35G5 | ATGTGCCTACAGTGCAGTTC |
| 7065 | SLC35G5 | CACCACCTGAACTGCACTGT |
| 7066 | SLC35G5 | CCTAGGACTAATCATCATTC |
| 7067 | SLC35G5 | CACCAGCGCTGCCAGCCCTC |
| 7068 | SLC38A5 | ACTCACCCCACAGCATCCGA |
| 7069 | SLC38A5 | GGAAGAAGATGACCCCCGTG |
| 7070 | SLC38A5 | GATGAATGGAGCCCTCCCTT |
| 7071 | SLC38A5 | TTCGAGGGGAAGACATCGTT |
| 7072 | SLC38A5 | GAAGCGCAATGCACAGCAGC |
| 7073 | SLC38A5 | GAGCAAGCCGGTCCAGTTCA |
| 7074 | SLC39A8 | TGCTTGGGCCGATCCTCACA |
| 7075 | SLC39A8 | GTCAGTGACGATTATTAATC |
| 7076 | SLC39A8 | GATTAATAATCGTCACTGAC |
| 7077 | SLC39A8 | CTCAACATAACTGTCGACTT |
| 7078 | SLC39A8 | AGTCGACAGTTATGTTGAGA |
| 7079 | SLC39A8 | TTCAATTGCTGTAAGACTGC |
| 7080 | SLC40A1 | GCCCGTAGACTGCTGTCAAA |
| 7081 | SLC40A1 | CATTTAAGGGAGATCGGATG |
| 7082 | SLC40A1 | AACTTACGAGAACCCATCCA |
| 7083 | SLC40A1 | CTACTGCAATCACAATCCAA |
| 7084 | SLC40A1 | AACATTCTGTACCACCAGCG |
| 7085 | SLC40A1 | TGTGATTGCAGTAGCAGTAC |
| 7086 | SLC45A4 | CATCTTCGAAGGCGACCCCA |
| 7087 | SLC45A4 | GCCGCTTCTGCATGTCGTAC |
| 7088 | SLC45A4 | CAAAGAGGACGCCAACGCAG |
| 7089 | SLC45A4 | GCCGGTTGGGGACATCGCCG |
| 7090 | SLC45A4 | GCCCATCCGTGCCTATCTGC |
| 7091 | SLC45A4 | TACCGATGGCAGAGCCGTTA |
| 7092 | SLC4A5 | GAATGCCCTCCTATCCACAT |
| 7093 | SLC4A5 | TAACCACAGGAGGAGATTTC |
| 7094 | SLC4A5 | GGCCTGAAAGATGTCCCTTC |
| 7095 | SLC4A5 | GCAGCATGACGGAGACCAGA |
| 7096 | SLC4A5 | GTGACCTCACCTTTCTGATC |
| 7097 | SLC4A5 | CCCCACCCTCTTTACAGAGA |
| 7098 | SLC52A1 | TTCACCAGTGCCGTGACCAA |
| 7099 | SLC52A1 | CACGCCATTGGTCACGGCAC |
| 7100 | SLC52A1 | CTGAATGGCAGCACCCACGC |
| 7101 | SLC52A1 | CTCCCTTGCAGGTGCTGTCG |
| 7102 | SLC52A1 | CCTTTCTGCTTTGAAACACG |

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| 7103 | SLC52A1 | CAGCACCAGACGGCCCAGCG |
| 7104 | SLC52A2 | GCCACCAACGCGCTGACCAA |
| 7105 | SLC52A2 | TGGCGTGTTCTCCTACGTGA |
| 7106 | SLC52A2 | TGGTAGGCCAGACGCCCGTA |
| 7107 | SLC52A2 | TGGGTCAGCACCGGACGGGC |
| 7108 | SLC52A2 | AGCACCCACGCCCGCCCGTC |
| 7109 | SLC52A2 | CACGAGGACCACCCCCGCCG |
| 7110 | SLC6A14 | AATTTCACTGCCGTTGATGC |
| 7111 | SLC6A14 | AACTGTAGCAGATCACCAAT |
| 7112 | SLC6A14 | CTGGGACAATTTGCTAGCTT |
| 7113 | SLC6A14 | AATGATGAGAATCAGGACCG |
| 7114 | SLC6A14 | AGCTTCCCAGTGAACAATAT |
| 7115 | SLC6A14 | CCATATCTGACCTACAGCAA |
| 7116 | SLC9A5 | AATACTGACCGACTCCCTTC |
| 7117 | SLC9A5 | GAGATGTTACTTTCCGAGAC |
| 7118 | SLC9A5 | GCTCAACGATGCTGTCACCG |
| 7119 | SLC9A5 | CAGGCTATTTCATGCCTAGC |
| 7120 | SLC9A5 | CGGGGTCCACCGCCGAGATG |
| 7121 | SLC9A5 | GCAGGCCACTGACTACCTGA |
| 7122 | SLCO5A1 | ACAGCGAAGTCAGCTCCGTG |
| 7123 | SLCO5A1 | CTGACTTCGCTGTCCCACGG |
| 7124 | SLCO5A1 | GGAAGCTGCAACGTTAATTG |
| 7125 | SLCO5A1 | TGCTCCCATGACATACATGA |
| 7126 | SLCO5A1 | TACATACTTTAACCCTTGTC |
| 7127 | SLCO5A1 | CAGAATGACCCTCGTTTCAT |
| 7128 | SLITRK2 | GTTACAGGAGATCCGAACGG |
| 7129 | SLITRK2 | TGGCGTCGAGATTCATAGGA |
| 7130 | SLITRK2 | CTCAGTGTGTTAACCGTGGC |
| 7131 | SLITRK2 | AAAGCTGATAGATTCGATAC |
| 7132 | SLITRK2 | TAAAGATGCTGAGCGGCGTT |
| 7133 | SLITRK2 | CCTGTAACCCGTTGTTACCT |
| 7134 | SLITRK6 | TTAACCCATCTAGATCTTCG |
| 7135 | SLITRK6 | CGAACACATTGGCCGAATAT |
| 7136 | SLITRK6 | CATTAATGTACTCACGTCCA |
| 7137 | SLITRK6 | TGCAAAGTCCTATCCCCATC |
| 7138 | SLITRK6 | GCTAACCCAGATTGACCTTG |
| 7139 | SLITRK6 | CCATTAACTTCAGCTCTTCG |
| 7140 | SLPI | ACTTCAAGTCACGCTTGCAC |
| 7141 | SLPI | ACTCAGGTTTCTTGTATCTA |
| 7142 | SLPI | AAACATTGGCCATAAGTCAC |
| 7143 | SLPI | CATTTGATGCCACAAGTGTC |
| 7144 | SLPI | AACTCTGGCACCTTGGGCTG |
| 7145 | SLPI | GCCTTCACCATGAAGTCCAG |
| 7146 | SLX1A | CCTTACCCGAAGGGCGGCCA |
| 7147 | SLX1A | GAGATGGTGCTCGTCGTGCA |
| 7148 | SLX1A | GGGACCTCACCTGGATGGTC |
| 7149 | SLX1A | GCCCGCAGTTTGAGTGGGCT |
| 7150 | SLX1A | ACTGCACTCACCAAGGGCAT |
| 7151 | SLX1A | GCCTGGGTCAGGATGAAGAG |

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|---|---|---|
| 7152 | SLX1B | CCTTACCCGAAGGGCGGCCA |
| 7153 | SLX1B | GAGATGGTGCTCGTCGTGCA |
| 7154 | SLX1B | GGGACCTCACCTGGATGGTC |
| 7155 | SLX1B | GCCCGCAGTTTGAGTGGGCT |
| 7156 | SLX1B | ACTGCACTCACCAAGGGCAT |
| 7157 | SLX1B | GCCTGGGTCAGGATGAAGAG |
| 7158 | SMAD5 | TCCAGCAGTAAAGCGATTGT |
| 7159 | SMAD5 | GGATTGAATTCATTATGACG |
| 7160 | SMAD5 | TCATCATGAGCTAAAGCCGT |
| 7161 | SMAD5 | GGTTCCTAAACTGAACCAGA |
| 7162 | SMAD5 | TACTTACAGAGGCAGATTTC |
| 7163 | SMAD5 | AAGTGAGTCTCCCGAATAAC |
| 7164 | SMARCA1 | TTAATTTCAGCTACCGCCAT |
| 7165 | SMARCA1 | GCTGACAATATGCTCATCAG |
| 7166 | SMARCA1 | GGTAGTTCTGGATAAACTAT |
| 7167 | SMARCA1 | CTTCTTGCTCTGTGCGCCTA |
| 7168 | SMARCA1 | GAAGAGTCTGCCACCTAAAA |
| 7169 | SMARCA1 | TGAGTAAGATGCAACGAGAA |
| 7170 | SMARCA2 | CTTGTCATGTATACCATCGA |
| 7171 | SMARCA2 | CTCCCATCCTATGCCGACGA |
| 7172 | SMARCA2 | GGTCCAGGCCTTGCGGTTTC |
| 7173 | SMARCA2 | TCGCATACCAGTGCCCTTCA |
| 7174 | SMARCA2 | AAGTCTGTGGACCCCATCGT |
| 7175 | SMARCA2 | CCGCTCTTGCAGAATTTCCA |
| 7176 | SMARCA4 | CTGGCCGAGGAGTTCCGCCC |
| 7177 | SMARCA4 | CATCCCGGGGGGCACGCCCG |
| 7178 | SMARCA4 | CCTGTTGCGGACACCGAGGG |
| 7179 | SMARCA4 | TTGTCCTGAGGGTACCCTCC |
| 7180 | SMARCA4 | CGGCACCTCCAAATTACAGC |
| 7181 | SMARCA4 | GGCGTGCCCCCCGGGATGCC |
| 7182 | SMARCA5 | AAGCAGAACTTACTATCCGT |
| 7183 | SMARCA5 | TTCAAATCGAGTGCAAACAT |
| 7184 | SMARCA5 | CTGAGAGATTATCAGGTCCG |
| 7185 | SMARCA5 | AATACTCGAATCTATTTGCC |
| 7186 | SMARCA5 | ACACCGTAGAACAGAGCAAG |
| 7187 | SMARCA5 | AAATGAGCCAGTTTAATCCT |
| 7188 | SMARCAD1 | ATCATCATTTCTACGTGCCA |
| 7189 | SMARCAD1 | TCTGAAGATGAAGAGTCCCA |
| 7190 | SMARCAD1 | ATGCTGAAGGGGAAGTTAGC |
| 7191 | SMARCAD1 | AATTTCTCTTAGTGCTGAAG |
| 7192 | SMARCAD1 | TCATATTTCAAAAATCAAAG |
| 7193 | SMARCAD1 | TGCTAAACTTCAGACTTTGA |
| 7194 | SMARCB1 | AACTACCTCCGTATGTTCCG |
| 7195 | SMARCB1 | TGAGAACGCATCTCAGCCCG |
| 7196 | SMARCB1 | CATCGATCTCCATGTCCAGC |
| 7197 | SMARCB1 | TCTTCTTGTCTCGGCCCATG |
| 7198 | SMARCB1 | CATGCTCCACAACCATCAAC |
| 7199 | SMARCB1 | CTAGTCGCCTCCAGAGTGAG |
| 7200 | SMARCC1 | AGATATCATCAAACGACATC |

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|---|---|---|
| 7201 | SMARCC1 | GGCGCCTTATGTCACATTCT |
| 7202 | SMARCC1 | GCCAACTTCAGATCAATGTC |
| 7203 | SMARCC1 | AGCCCCAAGAATGTGACATA |
| 7204 | SMARCC1 | TGCTCCTACCAATAAAACAC |
| 7205 | SMARCC1 | TGGGAAGCATGTCACCAACC |
| 7206 | SMARCC2 | GGCCTCGTAGTACTTCACGT |
| 7207 | SMARCC2 | TGACCCAGTTCGACAACGTG |
| 7208 | SMARCC2 | TGCACCGCTCACTAAACTGC |
| 7209 | SMARCC2 | ATTGTAGCAACTGTACAACC |
| 7210 | SMARCC2 | GAAATTGAGCCCAAACTACT |
| 7211 | SMARCC2 | GGACATTATCAAGAGACACC |
| 7212 | SMARCD1 | TGTTCCTAAGATTCGTGAAC |
| 7213 | SMARCD1 | TACCTTGATGGGACGTTTCA |
| 7214 | SMARCD1 | AGCTACTCACTTCTACCAGA |
| 7215 | SMARCD1 | TTTGTCCAGTTCAATCACCA |
| 7216 | SMARCD1 | CTGACAAAATTCTACCTCAA |
| 7217 | SMARCD1 | CAGTGCAAAGAAAAAGAAGA |
| 7218 | SMARCD2 | CTCCACATCGATGTCGTAAC |
| 7219 | SMARCD2 | AGCCTGTTACGACATCGATG |
| 7220 | SMARCD2 | CTCCATCCGCTTGCGAGCAA |
| 7221 | SMARCD2 | ACCAGACCATTGCTCGCAAG |
| 7222 | SMARCD2 | TCCTCCCCAGGTTAAAGAGG |
| 7223 | SMARCD2 | GGCGATCTCCTGCTGATTGG |
| 7224 | SMARCD3 | GTCCACCCGCTTCCGCATGA |
| 7225 | SMARCD3 | CCCTCCGGCAACTTCGTCCG |
| 7226 | SMARCD3 | ATGGCCGCGGACGAAGTTGC |
| 7227 | SMARCD3 | CAGCGCCCCGGGATGCCGTC |
| 7228 | SMARCD3 | CCTTCTCCAGATTCGGGAGC |
| 7229 | SMARCD3 | CGGGGGCGCTGCTCGCTTGC |
| 7230 | SMARCE1 | TCGACAGAGACAATCTCGCA |
| 7231 | SMARCE1 | AGACGACGAGAACATTCCGA |
| 7232 | SMARCE1 | AGTGGGTTACCTGTCTCCAT |
| 7233 | SMARCE1 | AAACTTACTGTTGCAGGAGC |
| 7234 | SMARCE1 | TTACCATCTGGATCTTCAGC |
| 7235 | SMARCE1 | GTGGGAGGTGGGGCATAAGA |
| 7236 | SMIM19 | ATTATACTGTTCACGAAGCC |
| 7237 | SMIM19 | GCTTATCGTGTCATAAAAGT |
| 7238 | SMIM19 | GATTCGTTTAAGACAACAAC |
| 7239 | SMIM19 | AACTATCAAGTAAACATTGG |
| 7240 | SMIM19 | TGACAGTGTGCAACTCTCAT |
| 7241 | SMIM19 | AGAGTTGCACACTGTCAGCT |
| 7242 | SMKR1 | CGTTGTGGGCGATGTAGTAG |
| 7243 | SMKR1 | TCTTCCCATGAGACTTGCCC |
| 7244 | SMKR1 | GCTGACTGCCTGCATCTGCG |
| 7245 | SMKR1 | GTCTTTGAAAGCCAGCTAAA |
| 7246 | SMKR1 | GGGCTGAGAATGTCCACTTC |
| 7247 | SMKR1 | AAAGGCCAGGGCAAGTCTCA |
| 7248 | SMTNL2 | ATCGGCAGGGGGAGCGTCGC |
| 7249 | SMTNL2 | TGCGACGCTCCCCCTGCCGA |

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| 7250 | SMTNL2 | AGAAGAATTCCTCTTTCACG |
| 7251 | SMTNL2 | ACTGCCCCATAGCCAGAGCT |
| 7252 | SMTNL2 | CAGCCCTACCTGCCCCCGGC |
| 7253 | SMTNL2 | AATGGGCACCAGCCGGGGGC |
| 7254 | SMYD1 | GGCTGGCGGCGCGCATCATG |
| 7255 | SMYD1 | GCAAGTCGTCCACGGACACC |
| 7256 | SMYD1 | GGGGAAGATGCCTACGCCCA |
| 7257 | SMYD1 | CTGCGACCGCACCTGCCAGA |
| 7258 | SMYD1 | ACTTGCACTGCCCACAGCGA |
| 7259 | SMYD1 | GCCTGGTGAACCATGACTGT |
| 7260 | SMYD3 | CTTGCACACCGTGTACGCCA |
| 7261 | SMYD3 | AAAAGTTCGCAACCGCCAAG |
| 7262 | SMYD3 | CCAGACTCCGTTCGACTTCT |
| 7263 | SMYD3 | TTGCATTCCCGCTTGTGGTC |
| 7264 | SMYD3 | ATACTGTAGTGCTAAGTGTC |
| 7265 | SMYD3 | ACACTTAGCACTACAGTATT |
| 7266 | SNAPC4 | GGGATCGTCCTCGTCATTGC |
| 7267 | SNAPC4 | CCAACAGTTACCGAGATCGG |
| 7268 | SNAPC4 | GGGCGAAGCCAGCAATGACG |
| 7269 | SNAPC4 | CTTCATGAAGCCGTATTTCA |
| 7270 | SNAPC4 | AAGTGCCCCATGTATGTGCT |
| 7271 | SNAPC4 | TCCTGCCGATCCCCCGATCT |
| 7272 | SNAPC5 | TCACCTTGAGGCGGTTCAGC |
| 7273 | SNAPC5 | CGACCAGCTGAACCGCCTCA |
| 7274 | SNAPC5 | CTTACATCATGTGACTGTTC |
| 7275 | SNAPC5 | TTCTAGAACTGATCATTGAT |
| 7276 | SNAPC5 | GAGCACAAAGAGTCATGTGA |
| 7277 | SNAPC5 | ATCAATCAACCAAACAACCC |
| 7278 | SNRNP70 | TGCCTTCAAGACTCTCTTCG |
| 7279 | SNRNP70 | CGCCACGAAGAGAGTCTTGA |
| 7280 | SNRNP70 | AACTCGTGCTGAAACCCGAG |
| 7281 | SNRNP70 | GTTTCAGCACGAGTTGGAGG |
| 7282 | SNRNP70 | AGAGACGGGAAAAGATTGAG |
| 7283 | SNRNP70 | TCACAATGATCCCAATGCTC |
| 7284 | SNRPA1 | TCAAATCGCTGACTTACCTA |
| 7285 | SNRPA1 | TCTCACCAATAATAGTCTCG |
| 7286 | SNRPA1 | CAGTTCCACGAGACTATTAT |
| 7287 | SNRPA1 | TTGTAGTATCCTAAGAAATC |
| 7288 | SNRPA1 | TAGTGAACAACAACAGAATA |
| 7289 | SNRPA1 | ACAGGGTGATCTGGACCCTC |
| 7290 | SNX13 | TTAGTGTATAATACCAATAC |
| 7291 | SNX13 | TCTATCAATCTTAATAGTCC |
| 7292 | SNX13 | AAGGCTTCCCCATCCCCATA |
| 7293 | SNX13 | TTCAGGCCAGTCTATCCATA |
| 7294 | SNX13 | CACTCATTCAGTTTGCTACT |
| 7295 | SNX13 | CTGAAACTCACTTGCTGGAG |
| 7296 | SNX7 | ACTTTCTTCAGACATCTCGT |
| 7297 | SNX7 | GCGGATGTCTGGACTCTCAG |
| 7298 | SNX7 | TTCTTAGGATGCCTCATTGA |

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|---|---|---|
| 7299 | SNX7 | TCTGTGGTCAGCGTCAGAAG |
| 7300 | SNX7 | TAGAAACTTTCATTACGTAT |
| 7301 | SNX7 | GACGATATCAAGATTTCCTT |
| 7302 | SORT1 | CCGGGACTTCGTCGCCAAGC |
| 7303 | SORT1 | CTGCGGACGGCCTCTCGCGC |
| 7304 | SORT1 | GACAGTCCAAGCTATATCGA |
| 7305 | SORT1 | ATCTCACCTTCGATATAGCT |
| 7306 | SORT1 | TCAGTATCCTTGTCCTGGGT |
| 7307 | SORT1 | CATGTGTTTGATGATCTCAG |
| 7308 | SOS1 | TCTCGAGCATACGATTCATA |
| 7309 | SOS1 | CCGAAGTGCTTCAGATGTAG |
| 7310 | SOS1 | CTTAGTCAGTTATCAAAGCC |
| 7311 | SOS1 | TCATCATTAGACTCGAGAGT |
| 7312 | SOS1 | CCCAATCAGCTATTGAAAAG |
| 7313 | SOS1 | TCCCTCATCCAATTGATAAA |
| 7314 | SOS2 | CAAAATCCATCCTTCGTTGA |
| 7315 | SOS2 | CTAGTACAGCCACAATATAT |
| 7316 | SOS2 | CCATGTATCCCTATATATTG |
| 7317 | SOS2 | AGCAGATTGTGCATCAGCAA |
| 7318 | SOS2 | TTCAAAACAGCTGCCAGCTA |
| 7319 | SOS2 | AGCAGTCCTCATCCCTTAGC |
| 7320 | SOX6 | GCTCCCGTAAACTGATCAGC |
| 7321 | SOX6 | TTACCCAGCTGATCAGTTTA |
| 7322 | SOX6 | TTTAATAGATTCCTCCTGCA |
| 7323 | SOX6 | GTTGGTAGCTCCTCAGAGTG |
| 7324 | SOX6 | CCAGTCAGCATCTTGTTGAA |
| 7325 | SOX6 | CTAAATACCAGTGAACTTCT |
| 7326 | SOX9 | CGTGTTCTCGGTGTCCGAGC |
| 7327 | SOX9 | CCCTATCGACTTCCGCGACG |
| 7328 | SOX9 | CATGAAGATGACCGACGAGC |
| 7329 | SOX9 | CACACGTGGCCCGCGCTCGC |
| 7330 | SOX9 | CGACTCACCCGAGTGCTCGC |
| 7331 | SOX9 | TTCACCGACTTCCTCCGCCG |
| 7332 | SPAG5 | CCTCCTAACCTGCGGGCTGA |
| 7333 | SPAG5 | AACACCCTCTGCCTAATGAC |
| 7334 | SPAG5 | AAGGTCCTGTCATTAGGCAG |
| 7335 | SPAG5 | TTTCACCCGAGTAGCATCAA |
| 7336 | SPAG5 | CTTCTTTAGACTCTTGTAGC |
| 7337 | SPAG5 | TCATAATACTCATTTCTGCC |
| 7338 | SPAM1 | TCTATGTGCGCAATCGAGTT |
| 7339 | SPAM1 | CCTCAGTATAATGCGAAGTA |
| 7340 | SPAM1 | AGTGTGACGTTGATTATGTA |
| 7341 | SPAM1 | AGCCCCCGAATAAACGCCAC |
| 7342 | SPAM1 | AAAACCGACACTTGAAGACC |
| 7343 | SPAM1 | CCATACTTCGCATTATACTG |
| 7344 | SPANXA1 | ATGGACAAACAATCCAGTGC |
| 7345 | SPANXA1 | TACCATCTCGTTGGCCTCGT |
| 7346 | SPANXA1 | CAGATGCCGGAGACCCCAAC |
| 7347 | SPANXA1 | GTAGCTTCTTGCTACTTTGC |

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|---|---|---|
| 7348 | SPANXA1 | CGTCCCCTGTGATTCCAACG |
| 7349 | SPANXA1 | GACGCTCCTCTTCACCCCGC |
| 7350 | SPANXC | TACCGTCTCATTCACCTCGT |
| 7351 | SPANXC | ATGGACAAACAATCCAGTGC |
| 7352 | SPANXC | CAGATGCCGGAGACCCCAAC |
| 7353 | SPANXC | GTAGCTTCTTGCTACTTTGC |
| 7354 | SPANXC | CGTCCCCTGTGAATCCAACG |
| 7355 | SPANXC | GACGCTCCTCTTCACCCCGC |
| 7356 | SPEN | GTTCATTATAATCCGTGCGT |
| 7357 | SPEN | CCGTCACTTCATGCACGAGA |
| 7358 | SPEN | TATTGCAGAAACGCATACTG |
| 7359 | SPEN | TCTTGGAAATAATCGCCTCA |
| 7360 | SPEN | AAAGCCTTGACTGCATCAAA |
| 7361 | SPEN | GTAACTTCAGTGCAGATACA |
| 7362 | SPG11 | GCGGGTTCTACCGATGCTGT |
| 7363 | SPG11 | GTCGCGAGTGCTGCTTCCGC |
| 7364 | SPG11 | TGACAATCACTGCAACATCG |
| 7365 | SPG11 | ATTTAAGTTAAGAGCAACTG |
| 7366 | SPG11 | CTAATTGCAGCATCTCTTTC |
| 7367 | SPG11 | ATCATGTCCACTGCCTGTGC |
| 7368 | SPINT1 | CATCCGTGTCACCCCGCAGT |
| 7369 | SPINT1 | CTTCAAGTCTATGCCTGCCC |
| 7370 | SPINT1 | ACCTGGATGGCGCCTTTCCA |
| 7371 | SPINT1 | GACTAGCTCAGACCACCCAG |
| 7372 | SPINT1 | TGAGTCCCCACAGTTCCACC |
| 7373 | SPINT1 | CTCTCTCCCAGGCCCCTCCA |
| 7374 | SPOCD1 | GCATCGAGCTCATCCGCACC |
| 7375 | SPOCD1 | AGATGTCACCCCCTACGACC |
| 7376 | SPOCD1 | GTCCGAGCTGGGGTCGCCAA |
| 7377 | SPOCD1 | GGCCCTTGGCGACCCCAGCT |
| 7378 | SPOCD1 | AGCACACAAGCTTCACTCCA |
| 7379 | SPOCD1 | GAGGAAGTGAAAATACCCCA |
| 7380 | SPRYD7 | GCCAGCAAACAGTCTTCCGC |
| 7381 | SPRYD7 | GTCCCTCGTATACCTGATGC |
| 7382 | SPRYD7 | TCCCTGCGCGATGGCCACCT |
| 7383 | SPRYD7 | AGTATACATTTAATTCGACA |
| 7384 | SPRYD7 | TCACCAGACTGTGCATATCT |
| 7385 | SPRYD7 | GAATTCAAAATCCAGTCCAC |
| 7386 | SPSB2 | GGAACTCTGGGCTACGCTAT |
| 7387 | SPSB2 | GCATCCGCTACCTGGGCGAA |
| 7388 | SPSB2 | CCTGTGTGTGCGCCACAACC |
| 7389 | SPSB2 | CCAGGTTGTGGCGCACACAC |
| 7390 | SPSB2 | GGTTCCAACCGTGGCGCCGC |
| 7391 | SPSB2 | TGGGCAGCAACAGCGAGTCG |
| 7392 | SPTBN2 | CCGCATGCGGATCCACTGCC |
| 7393 | SPTBN2 | CTTTGAGAGGTCTCGCATTA |
| 7394 | SPTBN2 | GGGACCTGTACAGCGACCTC |
| 7395 | SPTBN2 | CGCTGTACAGGTCCCCCACC |
| 7396 | SPTBN2 | ACAGTGACATCAACAACCGC |

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|---|---|---|
| 7397 | SPTBN2 | GACCATCATCCTTCGATTCC |
| 7398 | SPTY2D1 | TTACTGACAGTCCGTCCAGC |
| 7399 | SPTY2D1 | ACTCTGCGTGATTGTACTCG |
| 7400 | SPTY2D1 | TGATTATGCCTTACGTTACA |
| 7401 | SPTY2D1 | ACTACTTTCCATGTAACGTA |
| 7402 | SPTY2D1 | AAGCTTGTACAGCTGCTGAT |
| 7403 | SPTY2D1 | GAAGAGGAGCTGAGACGAAA |
| 7404 | SQSTM1 | ACGCTACACAAGTCGTAGTC |
| 7405 | SQSTM1 | CGACTTGTGTAGCGTCTGCG |
| 7406 | SQSTM1 | TTCACACTCGGATCCTCCGA |
| 7407 | SQSTM1 | AGGGCTTCTCGCACAGCCGC |
| 7408 | SQSTM1 | AATGGCCATGTCCTACGTGA |
| 7409 | SQSTM1 | CACTCTCCCCAACGTTCTTC |
| 7410 | SRA1 | TGATGACATCAGCCGACGCC |
| 7411 | SRA1 | GACCCGCCGCAGTTCTCATA |
| 7412 | SRA1 | CCGAGGATTATGAAGCCTGC |
| 7413 | SRA1 | ATCACAGCCTCAGACTCGAC |
| 7414 | SRA1 | TCCGCAGGCAACAAGGAACG |
| 7415 | SRA1 | CAGGCATTGGAAGACTGCCG |
| 7416 | SRC | TAACCGCTCTGACTCCCGTC |
| 7417 | SRC | GTCTGACTTCGACAACGCCA |
| 7418 | SRC | CTCACGTGTTGTTGACAATC |
| 7419 | SRC | GCTCGCCTTTCTTGAAGGAC |
| 7420 | SRC | GCACTACAAGATCCGCAAGC |
| 7421 | SRC | CTCAATGCAGAGAACCCGAG |
| 7422 | SRCAP | ACTTTGCTCAGGAGCGCCGT |
| 7423 | SRCAP | AGCAATCCGAGTCTCGATCT |
| 7424 | SRCAP | GGAAGCAATTCGACGCAGCT |
| 7425 | SRCAP | GCGTCGAATTGCTTCCACCA |
| 7426 | SRCAP | ACTTTCAAACCTGTGTCTGT |
| 7427 | SRCAP | GCTCCCAGTCCTACAGACAC |
| 7428 | SRCIN1 | GGCTGGTGCACACGTCCGAG |
| 7429 | SRCIN1 | CGCATCGTCCGCAGACAGCA |
| 7430 | SRCIN1 | ATGGGGAACGCTCCGTCCCA |
| 7431 | SRCIN1 | CGACATGGTCTCCAGCGACT |
| 7432 | SRCIN1 | CTACGCCTCCGCCGAGTCGC |
| 7433 | SRCIN1 | CGGAGTACCCGCGGGAGTAC |
| 7434 | SRGAP2D | AGCCCAGAATGAGTACTTGC |
| 7435 | SRGAP2D | CCGTGGAGTCAGGGGAGCAT |
| 7436 | SRGAP2D | TCAGCACCAAGCCAAGTACA |
| 7437 | SRGAP2D | CCCATGCTCCCCTGACTCCA |
| 7438 | SRGAP2D | GCCTCACCATATCCCCCATG |
| 7439 | SRGAP2D | CCACAGCAGTGTTGTGACTT |
| 7440 | SRM | GTCAGTGATGATCACGTCGA |
| 7441 | SRM | GGTCCAGTGTGAGATCGACG |
| 7442 | SRM | TCCGCCCGCAGTAAGACCTA |
| 7443 | SRM | ACTCGTCTCTCTCCGTGCAC |
| 7444 | SRM | CCCCGCCGAAAGTCTCTTCA |
| 7445 | SRM | CTCGAAGCTGACCCTACATG |

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|---|---|---|
| 7446 | SRRM5 | GCCGGCCGTAACTCTTTCCC |
| 7447 | SRRM5 | AAGAAGAGTTACCGCCCACC |
| 7448 | SRRM5 | CGTCGGCTTGACTGTCATCC |
| 7449 | SRRM5 | GGGGTCGCTCTCCTTGCTAG |
| 7450 | SRRM5 | GCCAAGTGTCAAACCCCGAC |
| 7451 | SRRM5 | CTGCTGCTGGGCCGGTTAGA |
| 7452 | SRSF6 | GTATCTCAAAAAGTCGCTCC |
| 7453 | SRSF6 | TAGCCGTCGCGATCGCGACG |
| 7454 | SRSF6 | GGCCCGCGTCGCGATCGCGA |
| 7455 | SRSF6 | ATAGGTCTCGATCTAGAAGA |
| 7456 | SRSF6 | TACAGCAGTCGGAGAACATC |
| 7457 | SRSF6 | AACCTATGCGGATGCCCACA |
| 7458 | SRSF8 | TCGTCGCGCAGAGCTCGATT |
| 7459 | SRSF8 | CTGTAGCGCGACCGGCTGTA |
| 7460 | SRSF8 | GCGACGATCCAAGTCCTCCT |
| 7461 | SRSF8 | AGTAGCCCCTCGCGTCCAGC |
| 7462 | SRSF8 | ACGACCTAAGATTACGTTAT |
| 7463 | SRSF8 | TTCCTCTTGGATACCCGGGG |
| 7464 | SSPN | ACGGACTGTACCAGCGTCAC |
| 7465 | SSPN | CGTCACATCCCGGTAAACAA |
| 7466 | SSPN | CTTCTTCGGCTCCATGTCGT |
| 7467 | SSPN | CCTGGGCATCGCCGTGACCG |
| 7468 | SSPN | TATGCTTTGTGTCTCATATC |
| 7469 | SSPN | ACTGTGTGAGCTGCGAATAG |
| 7470 | SSRP1 | TATCTGGCGCCGTGTTGCTC |
| 7471 | SSRP1 | TACAGAATGATGGTCGACTG |
| 7472 | SSRP1 | CGGCTCACCAAGAACATGTC |
| 7473 | SSRP1 | CCCTCTATGAGATGGTCAGC |
| 7474 | SSRP1 | TCACTATCGCCTTGAGCTAA |
| 7475 | SSRP1 | AGTTCCAGCCCTTCACACAA |
| 7476 | SSX3 | CGTTTATTACGCATGAAAGA |
| 7477 | SSX3 | ACGGAGATGACACCTTTGCA |
| 7478 | SSX3 | GTGGGAAAAGATGAAAGTCT |
| 7479 | SSX3 | CATCTTTCATGCGTAATAAA |
| 7480 | SSX3 | AATACCAGAGAAGATACAAA |
| 7481 | SSX3 | TATTGCCAAATACTTCTCTA |
| 7482 | ST20 | AAGAAGCTTGAGCCTAAATC |
| 7483 | ST20 | TCGTAAGAGTCAGAAAAATT |
| 7484 | ST20 | GGAGTGCAATGGCGCGATCT |
| 7485 | ST20 | CACCTGAACCTGGGAGACAG |
| 7486 | ST20 | CACTGCAACCTCTGTCTCCC |
| 7487 | ST20 | TTAAAAGTAGAAGTATGTGT |
| 7488 | ST8SIA4 | ACCCGATGAGTTGCGTCTCC |
| 7489 | ST8SIA4 | CACCAGGAGACGCAACTCAT |
| 7490 | ST8SIA4 | TTTCACCAATGAAGAATCGC |
| 7491 | ST8SIA4 | CTCTGATAAAATCATTCGAA |
| 7492 | ST8SIA4 | ACATAGTGTATGACATCACC |
| 7493 | ST8SIA4 | TCCAACCTTCTACATTGTGC |
| 7494 | STAG1 | ACTACTGCCCATTCCGATGC |

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| 7495 | STAG1 | TTCAAGCTCGCTGCCAGCAT |
| 7496 | STAG1 | ACCACCTCAAATAATGTGAC |
| 7497 | STAG1 | GCAGGCCGTGGAAGAGCTAA |
| 7498 | STAG1 | TACCTCGACATCCTGAACAC |
| 7499 | STAG1 | TTCAATCCAGTCATCCACCA |
| 7500 | STAG2 | CTTCAGTCGTAGAGATCCAG |
| 7501 | STAG2 | TGAGCATGCAGCATACCTTG |
| 7502 | STAG2 | AGTCCCACATGCTATCCACA |
| 7503 | STAG2 | AGAAGACACAGTTGGATGAT |
| 7504 | STAG2 | CCTTTAGGTGCTTACAGCAA |
| 7505 | STAG2 | TGCCAACCTTGTTAAGACAT |
| 7506 | STAT3 | AGATTGCCCGGATTGTGGCC |
| 7507 | STAT3 | AGAGAACATTCGACTCTTGC |
| 7508 | STAT3 | ACAATCCGGGCAATCTCCAT |
| 7509 | STAT3 | GCATCACCTGCACTCTCTTC |
| 7510 | STAT3 | ACTGCTGGTCAATCTCTCCC |
| 7511 | STAT3 | CTGCTGCTTCTCCGTCACCA |
| 7512 | STK11 | CAGGTGTCGTCCGCCGCGAA |
| 7513 | STK11 | CAGCCGCCCGAGATTGCCAA |
| 7514 | STK11 | CCACCGCATCGACTCCACCG |
| 7515 | STK11 | TCTACCAGCCGCGCCGCAAG |
| 7516 | STK11 | GAAGGGGAGCTACGCCATCC |
| 7517 | STK11 | GGGGCCACAGTCGCCCGGGA |
| 7518 | STK36 | TTCTCTGAGCGCCCCAATTT |
| 7519 | STK36 | TCAGAACATCCTCCTCGCCA |
| 7520 | STK36 | GGTGGGAATGCAGATAGTAC |
| 7521 | STK36 | GGTGGTGACAGACTATGCTG |
| 7522 | STK36 | CCTGAAGTTCATCCCAAAAT |
| 7523 | STK36 | AGAAAGCATACCTGGTCTTC |
| 7524 | STX3 | TGAGATTGCTATCGACAACA |
| 7525 | STX3 | AACCCGGCCATCTTCACTTC |
| 7526 | STX3 | CAAGATCTCAGAACATGTAG |
| 7527 | STX3 | TGGCAAAAAGACAACCGATG |
| 7528 | STX3 | TCTCAGTCGTGAGCTGCTCT |
| 7529 | STX3 | CACTCACTTGGCTCTGGAAT |
| 7530 | SUCLA2 | TGCCAGGGTCCTGTATTAAT |
| 7531 | SUCLA2 | GATGGAAATATAGGCTGCCT |
| 7532 | SUCLA2 | GCTGCTGATTCCACAATATT |
| 7533 | SUCLA2 | GGCAGCCTATATTTCCATCG |
| 7534 | SUCLA2 | CCATCTGAATCTTCCACCAT |
| 7535 | SUCLA2 | GAACCTATTGATATTGAAGA |
| 7536 | SULT2B1 | TGATGCTCTCGAGCGAGTAC |
| 7537 | SULT2B1 | TGTCGTCGTCCCGCACATCT |
| 7538 | SULT2B1 | GGATCCGCTCCGTGCCCATC |
| 7539 | SULT2B1 | GCAGATGATCTCGATCATCC |
| 7540 | SULT2B1 | TGTCCCACAAGCCCGGGATC |
| 7541 | SULT2B1 | TTCCGAGATGTCATCTTCAT |
| 7542 | SUPT16H | CAACCATCAAAGTGCGAACA |
| 7543 | SUPT16H | ATATACCATCGCTGTAAAGG |

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|---|---|---|
| 7544 | SUPT16H | TGCCAAATCAACTGCCTTAC |
| 7545 | SUPT16H | CAACCTTGTTCGCACTTTGA |
| 7546 | SUPT16H | CCCATCCTCCTTTACAGCGA |
| 7547 | SUPT16H | CACCTGTAAGGCAGTTGATT |
| 7548 | SUPT4H1 | GTATATGCGGTGTCAGTCAC |
| 7549 | SUPT4H1 | CTCTCAGGTAACTTTAAGCC |
| 7550 | SUPT4H1 | TCCTGCTTCAGGAATCGTGC |
| 7551 | SUPT4H1 | TGATGCATATCTACAAATGA |
| 7552 | SUPT4H1 | TGCAGTCATATACCATCTCT |
| 7553 | SUPT4H1 | GGTCTTTATAGCTGTGTCTC |
| 7554 | SUPT5H | GTGTCATCGTGCGACTAGAA |
| 7555 | SUPT5H | TCCCCGGCTAGGGCCGAGAA |
| 7556 | SUPT5H | GAAGGACAACCGCTTTGCTG |
| 7557 | SUPT5H | GCACGATGACACCCACAGTC |
| 7558 | SUPT5H | CAAAGCGGTTGTCCTTCTTC |
| 7559 | SUPT5H | AGGCGAAGCTTCGGAAGAGA |
| 7560 | SUPT6H | ACTCACGCGTCTGTGTATCC |
| 7561 | SUPT6H | CCCACCCCTAGCAAAAGTAC |
| 7562 | SUPT6H | AGATATTGACGACTTCATTG |
| 7563 | SUPT6H | CACCCAAATTCTCCTCAATG |
| 7564 | SUPT6H | CAAAAAAATGTCAGATGACG |
| 7565 | SUPT6H | TTGGGTGTCAAAGTCAAAAG |
| 7566 | SURF1 | CATGGTGGACCCTGTCCGGG |
| 7567 | SURF1 | TGTCACTGTAGGTCCAGCGT |
| 7568 | SURF1 | TCAGCTTCCACTTCCGACGC |
| 7569 | SURF1 | GGGCATCATATACAGCTCCT |
| 7570 | SURF1 | GCAGCCCTCACCTGGGCGCG |
| 7571 | SURF1 | GACCCTGAGGACGCTCCTCC |
| 7572 | SUV39H2 | AATCACGTATCTCTTTGATC |
| 7573 | SUV39H2 | AAGCTCACATGTAAATCGAT |
| 7574 | SUV39H2 | AGTTTCACTTGATACTCTTC |
| 7575 | SUV39H2 | TCCCAAGTATTTGTAGAATC |
| 7576 | SUV39H2 | TCCACAAGAACCATAAATGC |
| 7577 | SUV39H2 | TTAGTGTGACCCAAATCTTC |
| 7578 | SYCE1L | CTAATCAGGTCCTCTATCTG |
| 7579 | SYCE1L | AGATAGAGGACCTGATTAGC |
| 7580 | SYCE1L | AGGAGTCTAATTCCCTATGC |
| 7581 | SYCE1L | GTCTTCAGTCTTCAAAGACT |
| 7582 | SYCE1L | TTTGAAGACTGAAGACTTGC |
| 7583 | SYCE1L | GGTCTCTCTCAGTTCCTCAC |
| 7584 | SYCP3 | CAATCTAGTTGACATTAACA |
| 7585 | SYCP3 | GGGTGAAGTGCAGAATATGC |
| 7586 | SYCP3 | GAGACTAGAAATGTATACCA |
| 7587 | SYCP3 | TTCTGACTTTGTTTCAGCAG |
| 7588 | SYCP3 | GAAACTGCTGAGAATATTCT |
| 7589 | SYCP3 | ACCAGAAAATTGAACATGTT |
| 7590 | SYNE1 | AAAAGATCGTCCACCACCAT |
| 7591 | SYNE1 | GATATCCCGAGGACACCGGG |
| 7592 | SYNE1 | ATATCGCCAATGTGATGCAG |

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|---|---|---|
| 7593 | SYNE1 | TTTACAGCGGAAACCTCCAA |
| 7594 | SYNE1 | AAAAACGAACTTTCACAAAA |
| 7595 | SYNE1 | TGTTAAACTGCTTGCCCTTC |
| 7596 | SYNE2 | AGAAGAAAGCCTTCACGTGC |
| 7597 | SYNE2 | TGAGTTTATCCAGCACGTGA |
| 7598 | SYNE2 | GCTTCCCACCGAAGATGAAC |
| 7599 | SYNE2 | CCAGGAACCCTGTTCATCTT |
| 7600 | SYNE2 | GATCTGCTAGAAGTACTTTC |
| 7601 | SYNE2 | AAAGTACTTCTAGCAGATCC |
| 7602 | SYT9 | CATTACTGACCGGGCCGACG |
| 7603 | SYT9 | ACTATGGCTTCGTTGTAAAC |
| 7604 | SYT9 | TCAACAGGACAACGTGGATC |
| 7605 | SYT9 | CATCAGCGAGACTTTCACAT |
| 7606 | SYT9 | ATGGTCAGCCTGCCAGCCGT |
| 7607 | SYT9 | CTGTGACTTGGCGCTGCACG |
| 7608 | TACC2 | GGAGCTGGCGGAGCTTTGAC |
| 7609 | TACC2 | TCTGGGATGACTTCGGGGGG |
| 7610 | TACC2 | TAACCAAGAGTCACACTTGC |
| 7611 | TACC2 | GGTGTTGAAGAGATGTGCGC |
| 7612 | TACC2 | GTACCTGTCCCGGGTGAAGA |
| 7613 | TACC2 | AACCAGCATCCTGTCCCACG |
| 7614 | TACC3 | TCAGGAGGGGGTCGAACTTG |
| 7615 | TACC3 | ACGAAGAACAGACGATCTTC |
| 7616 | TACC3 | CTTAGAATCCTGTGCGTCTG |
| 7617 | TACC3 | TAACTTCTGGTGGCGAAAAC |
| 7618 | TACC3 | CAGGATTCTAAGTCCTAGCA |
| 7619 | TACC3 | TCCTGGTAGACCAGTGCCCG |
| 7620 | TADA2A | CAATTAGGGAATGGACCGTT |
| 7621 | TADA2A | TCTGATAAGCCACCTTGCCG |
| 7622 | TADA2A | CATTCAGCACACTTGATATA |
| 7623 | TADA2A | TACTGCTAAAGGGACCCAAA |
| 7624 | TADA2A | GCTGAACCTGAAACAAGCAG |
| 7625 | TADA2A | TCAAATGTGCACCAAGACCA |
| 7626 | TADA2B | TTACGAGATCGAGTATGACC |
| 7627 | TADA2B | ACGGCGGGCGCTTCACGCTC |
| 7628 | TADA2B | CGTAATGCTCCATCACCTCT |
| 7629 | TADA2B | GAAGTACTGCGTGTACTGCC |
| 7630 | TADA2B | CGAGCTGAAGCGCGCCCACG |
| 7631 | TADA2B | GAGCCCGCTGATGAGCGTCT |
| 7632 | TAF10 | CAACGGAGACGTGAAGCCCG |
| 7633 | TAF10 | TACGTAAACCCCGTTAGATA |
| 7634 | TAF10 | CATTGATGCCATACTCGCTG |
| 7635 | TAF10 | ACCCCTGCCCTCAGCGAGTA |
| 7636 | TAF10 | CCTCAAAGCCAGCACGGTTC |
| 7637 | TAF10 | TACTCACATGCGTGGGTCTG |
| 7638 | TAF12 | GCGATGCCGCGCAAGCTGAC |
| 7639 | TAF12 | TCGCAAGTCTAGCACCCTGG |
| 7640 | TAF12 | CAGAGCGCCAGTGGAACATG |
| 7641 | TAF12 | TTCAGAGAATGGCATTGATC |

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| 7642 | TAF12 | AGTGGATCCTAATGAGCAGT |
| 7643 | TAF12 | CACCACAGAAGCTCACAAAC |
| 7644 | TAF13 | ACAGTGCGATGTATGATGTA |
| 7645 | TAF13 | TATCGTCTTCTTGATTCGAA |
| 7646 | TAF13 | ATATCCACTGACTCAGTATA |
| 7647 | TAF13 | AGTAAGCAAGTCTTTAACCC |
| 7648 | TAF13 | TGCTAGTGGGATGGCAGATG |
| 7649 | TAF13 | AGGAGGTGCAGAAGGTGGAC |
| 7650 | TAF1C | TCCGATACCGGCACCCTCCG |
| 7651 | TAF1C | GAAGCGGCCCCGAGTCGTGC |
| 7652 | TAF1C | TCACCTGAGGCTGATCCCCG |
| 7653 | TAF1C | ACCTCGGTGGACACCAGCCC |
| 7654 | TAF1C | CAGTGTGAAGAAGCTGCTCC |
| 7655 | TAF1C | CAGGCAATGCAGGTGGAGAA |
| 7656 | TAF6 | CACTACCTTCCCGAAGTTGA |
| 7657 | TAF6 | CCACCAGAGGCGAAGCGGAA |
| 7658 | TAF6 | ATTCCTTTCCGCTTCGCCTC |
| 7659 | TAF6 | AAGCGGTGATTGTTTGTAGA |
| 7660 | TAF6 | CTTGAAGCTAAAGAATGTCG |
| 7661 | TAF6 | CTCGACATTCTTTAGCTTCA |
| 7662 | TAF6L | TGACGGTTGAGGACTTCAAC |
| 7663 | TAF6L | CCGCTCTTCTCGCTCTGACA |
| 7664 | TAF6L | CGTGTGCTATCGTCTGAGAG |
| 7665 | TAF6L | AGTCCTCAACCGTCAGCTTC |
| 7666 | TAF6L | AAAGTAGAGTTCACCCTCCC |
| 7667 | TAF6L | CCTCAGGCTGTGTGTGGTTA |
| 7668 | TAF7L | TGACACTTTGAGAACGTGCT |
| 7669 | TAF7L | TGTCCCACTAGCTGCTAAGC |
| 7670 | TAF7L | AGGAACATGCTTGTACTGTC |
| 7671 | TAF7L | GAGGCAGACGCAATATAAAC |
| 7672 | TAF7L | GTTTATATTGCGTCTGCCTC |
| 7673 | TAF7L | TCAACCAGCTTAGCAGCTAG |
| 7674 | TAF9 | AGGTAAAAGACTGATCAGCG |
| 7675 | TAF9 | ACTGAACCAACACTTAACCG |
| 7676 | TAF9 | TGATGCAGATGATGTGCGAT |
| 7677 | TAF9 | CTGTAAACCTTTGACCTGTG |
| 7678 | TAF9 | GGCAACCTAGGACCTGAATA |
| 7679 | TAF9 | CCATGTCCCTCACAGGTCAA |
| 7680 | TANGO6 | GTACAGTCTTCGAGTTGCAT |
| 7681 | TANGO6 | CATAGACGCCGAAGCCAAGC |
| 7682 | TANGO6 | ATTAGCTGCAAGGCGGATCA |
| 7683 | TANGO6 | AAGCAGTTCCCGGACTGCTA |
| 7684 | TANGO6 | TCTATCAGCCCTTAGCAGTC |
| 7685 | TANGO6 | AATGAGACCTAATGGTGTTC |
| 7686 | TAPT1 | CTCAGTGCTGAACTAACAAG |
| 7687 | TAPT1 | TTTGCGAATACCAAGAGAAT |
| 7688 | TAPT1 | GATAGTGTGTCTAAGAAACA |
| 7689 | TAPT1 | AACAAGGTCAAAAGCAAGAC |
| 7690 | TAPT1 | CTCTTTCAAATGTCAAATAG |

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| 7691 | TAPT1 | TTTCAGTTTGTTGAAATTAA |
| 7692 | TARBP2 | GTCGCCAACGGTGACCCGGA |
| 7693 | TARBP2 | GCTTTGAGAAGGTCGTACAC |
| 7694 | TARBP2 | ACAGGGTGTGGGCTCCCGCC |
| 7695 | TARBP2 | ATCCAGGTAGCTGACGTGAA |
| 7696 | TARBP2 | GCTGGGTGGACAGTTCCACC |
| 7697 | TARBP2 | CCAGCATGCTCCCCCCTTTG |
| 7698 | TBC1D15 | CTAGGATGCCGAAGTAATAG |
| 7699 | TBC1D15 | TTCCTGAAATCAAGCCGTCT |
| 7700 | TBC1D15 | TCTAGCATAGAGAATACTAG |
| 7701 | TBC1D15 | GACCAAGACGGCTTGATTTC |
| 7702 | TBC1D15 | AGAGATTATAGAAGTCTTAT |
| 7703 | TBC1D15 | ACTTCAGAATGAAACTGCAG |
| 7704 | TBC1D19 | AAAAGTACCTTTCGTGCCAG |
| 7705 | TBC1D19 | CACTGAACTGAGTATCCCAC |
| 7706 | TBC1D19 | CAGACCTGTTTATGCACCTA |
| 7707 | TBC1D19 | CCTACCTCAAGAAAATCCTT |
| 7708 | TBC1D19 | GAAATGGGAACTGATGAACC |
| 7709 | TBC1D19 | AGTTCTTTCTGTTCTCCAAC |
| 7710 | TBC1D26 | GCTGCCCCACGTCAGTGCCC |
| 7711 | TBC1D26 | CCCGTATAACCTGCCTGCCC |
| 7712 | TBC1D26 | TCTTGCAGGATGGAGATGGA |
| 7713 | TBC1D26 | GGACTTACTGCACAATCCCG |
| 7714 | TBC1D26 | GGGTTTCAGGGACACCGAGC |
| 7715 | TBC1D26 | AGGCTCTTACCTTCACCTCC |
| 7716 | TBC1D3B | GGGCTACAGGGACACCGAGC |
| 7717 | TBC1D3B | TTGTTGTTGTAGCTTCGAAA |
| 7718 | TBC1D3B | AGCTGCCTCCTCTGACTGCG |
| 7719 | TBC1D3B | TTCGCCTCCCGCGCAGTCAG |
| 7720 | TBC1D3B | TCATTTGACAGCAAATTCGG |
| 7721 | TBC1D3B | TATCCACCCACTTGCTCTTT |
| 7722 | TBC1D5 | ACTAGCATATTACCAACCCG |
| 7723 | TBC1D5 | GATCAATAATCCTCTTTCAC |
| 7724 | TBC1D5 | TTGATCGAAGTTCTTTATCT |
| 7725 | TBC1D5 | TTCCTCAAGACAAAAGTCAA |
| 7726 | TBC1D5 | GAATTGAAGAATTAAGAGCA |
| 7727 | TBC1D5 | TATTGATCATCAAATCTTGT |
| 7728 | TBX10 | CTGAGGGTGCAAGTATGCCG |
| 7729 | TBX10 | ACACAATCTGGCGCATCCAC |
| 7730 | TBX10 | GGACAGTGAGCGCTATGCCC |
| 7731 | TBX10 | TAGCGCTCACTGTCCTTGCG |
| 7732 | TBX10 | ACCTGTATCTCTTGTCGTCC |
| 7733 | TBX10 | GCACCCTTGGCTGGCGAGTC |
| 7734 | TBX15 | TTGCGAATCACATGAACTCG |
| 7735 | TBX15 | GACTGTGTTCACCACAGTTA |
| 7736 | TBX15 | TCAGCAGTACTACATAGCAA |
| 7737 | TBX15 | GCTATGTAGTACTGCTGATG |
| 7738 | TBX15 | AGCTGCAATGTGCTGACCTC |
| 7739 | TBX15 | TCATTTCAGTTCCAATATCA |

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|---|---|---|
| 7740 | TBX19 | CAACACGCACTATGTGAACC |
| 7741 | TBX19 | AAATCACCTAAGAGACGTAC |
| 7742 | TBX19 | AGCAGTTTGTTACCATTCGA |
| 7743 | TBX19 | ACCCAACTCACAGTGAGAAT |
| 7744 | TBX19 | CCTTTCCTTGGCATCCAAGA |
| 7745 | TBX19 | CGTGACTGCCTATCAGAATG |
| 7746 | TCAIM | AACGTACCGGAAGTACTAAA |
| 7747 | TCAIM | ACAGACCAGAGTTCCTCCGA |
| 7748 | TCAIM | TTTGCCACCTGAGACCTATG |
| 7749 | TCAIM | TTTCCCATTGTTATCTAACC |
| 7750 | TCAIM | AATTGCAACTCTCAGATATC |
| 7751 | TCAIM | CTTACCTCCTCATAGGTCTC |
| 7752 | TCN2 | TCGGAGACAACGGATCACCA |
| 7753 | TCN2 | GCGTAGGCCCACATAGATGC |
| 7754 | TCN2 | GTGATCCGTTGTCTCCGACC |
| 7755 | TCN2 | GTCACCGTCATCCTCGCTGA |
| 7756 | TCN2 | AATACCCTAGGAGGCACTGC |
| 7757 | TCN2 | CTCATGACTTCCCCCATGCG |
| 7758 | TDRD7 | TGACCATGTCCACCAACAAC |
| 7759 | TDRD7 | TTTCAACGGTGGTGTTTGTT |
| 7760 | TDRD7 | TGAAGCATCACCATCTGTAT |
| 7761 | TDRD7 | ACCACTCATTTCCTTAGTAG |
| 7762 | TDRD7 | CCAGCACCGTTAAGAGACAA |
| 7763 | TDRD7 | ATATCTTAGGTTTAGCCCAA |
| 7764 | TEX101 | ATAGCATCGAGTTGTACCAT |
| 7765 | TEX101 | GCAGCCCTTCGTGGCCAAAA |
| 7766 | TEX101 | ACGAAGGGCTGCATCCCGGA |
| 7767 | TEX101 | CCTCCATTGTCCAACCTGTG |
| 7768 | TEX101 | CCTAGAGCTGTATTGTCAAA |
| 7769 | TEX101 | ATCCAGCCAATATGTTTAAC |
| 7770 | TEX9 | ATCGGCAAGAAGTACGATCT |
| 7771 | TEX9 | TGACGTGGTTCAACAAGCTA |
| 7772 | TEX9 | GCGTTTAAATGCAGAATTGC |
| 7773 | TEX9 | AGATGAACTATCCCTTCAGA |
| 7774 | TEX9 | AGAGGTCTGTTACCATCTGA |
| 7775 | TEX9 | ACGAAGATGATTACAGTTTA |
| 7776 | TFAP2C | ATGCTTAAATGCCTCGTTAC |
| 7777 | TFAP2C | CCGGTCCTTGCGGGAGAAGT |
| 7778 | TFAP2C | CGAATTTCCTAGTAAACCAG |
| 7779 | TFAP2C | AAATTCGGCTTCACAGACAT |
| 7780 | TFAP2C | TGTATTTAGACGTAGAGCTG |
| 7781 | TFAP2C | ACCCCACTGACCTTCTACTA |
| 7782 | TFAP2D | TGAGCGCCCGCGCATTGTGC |
| 7783 | TFAP2D | TCCTTCCAGATACGTCACGA |
| 7784 | TFAP2D | CTTGGCTTAAACTTACCAGC |
| 7785 | TFAP2D | GCGCCTCTTTACCTCAGCAA |
| 7786 | TFAP2D | CAGTGTGGGCTTGTTCTCAA |
| 7787 | TFAP2D | AAAAGTCATACCTTCAACCA |
| 7788 | TFE3 | GTCATACATACCTTGAGCGA |

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|---|---|---|
| 7789 | TFE3 | TGCTGCAGGTGGTAGCGCGT |
| 7790 | TFE3 | AACCCTTACCCCTTCGCTCA |
| 7791 | TFE3 | TTCACAGGTGCAGACCCATC |
| 7792 | TFE3 | GAGCATTTCATCATTGTAAC |
| 7793 | TFE3 | CATTGATGAGATCATCAGCC |
| 7794 | TFPT | GCGCTGCCGGGAGATCGAGC |
| 7795 | TFPT | GGCCCGGTAGTCATCCCCGT |
| 7796 | TFPT | TTCTGCGATTTAATTCCCGC |
| 7797 | TFPT | ACTCCTACGGGGATGACTAC |
| 7798 | TFPT | GAGTTATCCTCTGCACCTGA |
| 7799 | TFPT | CCACCCCATAGGTGAACGAG |
| 7800 | TGFA | CGTACGTACCCAGAGCGAAC |
| 7801 | TGFA | CGCCCGTAAAATGGTCCCCT |
| 7802 | TGFA | GTGCACCAACGTACCCAGAA |
| 7803 | TGFA | AACAGCACGTCCCCGCTGAG |
| 7804 | TGFA | CTTGGTGGTGGTCTCCATCG |
| 7805 | TGFA | GCTGCACTCACCACTCAGCG |
| 7806 | TGFB1 | CGGGTTCAGGTACCGCTTCT |
| 7807 | TGFB1 | ATACCTCAGCAACCGGCTGC |
| 7808 | TGFB1 | TTGATGTCACCGGAGTTGTG |
| 7809 | TGFB1 | GGCTCACCTGAAGCAATAGT |
| 7810 | TGFB1 | ACCAAAGCAGGGTTCACTAC |
| 7811 | TGFB1 | CACTCCTACAGGGGAAATTG |
| 7812 | TGFB2 | CTTTGCTGTCGATGTAGCGC |
| 7813 | TGFB2 | TCGATTTGACGTCTCAGCAA |
| 7814 | TGFB2 | TATAGCTCAATCCGTTGTTC |
| 7815 | TGFB2 | CCAGTTGTTACAACACCCTC |
| 7816 | TGFB2 | AACAGCATCAGTTACATCGA |
| 7817 | TGFB2 | AGATGGTACAAAAGTGCAGC |
| 7818 | TGFB3 | GCCACCGATATAGCGCTGTT |
| 7819 | TGFB3 | CCTCTACATTGACTTCCGAC |
| 7820 | TGFB3 | ATTGCCAAACAGCGCTATAT |
| 7821 | TGFB3 | ACCTATTCCGAGCAGAATTC |
| 7822 | TGFB3 | GAAGTGGGTCCATGAACCTA |
| 7823 | TGFB3 | GCTGATTTCTAGACCTAAGT |
| 7824 | TGM5 | TACCGACCCACGGCCGCCGT |
| 7825 | TGM5 | CCACGAAGATGATGTTGTCC |
| 7826 | TGM5 | CCTGCTTGTTCGCCGGGGCC |
| 7827 | TGM5 | CCCCGTCTACGTCAGCAGAG |
| 7828 | TGM5 | CACCACTCTGCTGACGTAGA |
| 7829 | TGM5 | CCTAGGACCGCTGCCAGACC |
| 7830 | THAP9 | TTCTCTGCACCTATCGTCAA |
| 7831 | THAP9 | GATTTCGCCTATGATCTGAC |
| 7832 | THAP9 | TTATCTCCGTAAAGAACTAC |
| 7833 | THAP9 | ATTCACTTACGTTCTGAGGA |
| 7834 | THAP9 | CCAGTGCTACTAACTCCACG |
| 7835 | THAP9 | CACAGTATAGCACCTGGTCC |
| 7836 | THEG | CCTCCAGTTGTCAAAGCCGA |
| 7837 | THEG | GTTCGGGGTCTGTGACCCGC |

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|---|---|---|
| 7838 | THEG | TCGGGGGGAAGCTCCTCTTC |
| 7839 | THEG | CGGTTATGGTCTGACACATG |
| 7840 | THEG | CGTGTCCTCACCTGTCTTTC |
| 7841 | THEG | TGGCAGAGCCCAAGATAAAC |
| 7842 | THEGL | TACCTGACCGTGATGCCCAT |
| 7843 | THEGL | CGATGGCTTACAGGACGGAT |
| 7844 | THEGL | AGACCCTCTAACTTGATCCT |
| 7845 | THEGL | ACTTCGCTAGAGCTATTGTT |
| 7846 | THEGL | CCATTTCCTTACAAAGTCAC |
| 7847 | THEGL | CTGTTTCCTGTGACTTTGTA |
| 7848 | THEM6 | GGACGACCGCGCGTTCTACC |
| 7849 | THEM6 | CTGCACGACGCGCTCGGGTG |
| 7850 | THEM6 | CAGCAGCCAGCTGCTCCGCA |
| 7851 | THEM6 | TGCCCGCTGATCTGCAGCAC |
| 7852 | THEM6 | CGCACACGAAGCCGTCCCGC |
| 7853 | THEM6 | GCGCCTCCAGGTAGAACGCG |
| 7854 | THNSL1 | CTGGGGCCGACTACTTCCGC |
| 7855 | THNSL1 | TCATATCAGCTGCACAGACC |
| 7856 | THNSL1 | AAACTACCTGCGGAAGTAGT |
| 7857 | THNSL1 | GTTTGCACCTGCTATCATGC |
| 7858 | THNSL1 | GCTGTAGATGAGATAATCAC |
| 7859 | THNSL1 | TCAAGTGTAAATGTCGTTCT |
| 7860 | TIMP1 | TCATCTTGATCTCATAACGC |
| 7861 | TIMP1 | GTAGACGAACCGGATGTCAG |
| 7862 | TIMP1 | AGTCATCAGGGCCAAGTTCG |
| 7863 | TIMP1 | CAGGTCCCACAACCGCAGCG |
| 7864 | TIMP1 | TTCACCAAGACCTACACTGT |
| 7865 | TIMP1 | GCCTGAGCTTAGCTCAGCGC |
| 7866 | TIMP4 | GTTAGGGGCCGAGATGGTAC |
| 7867 | TIMP4 | GCTCGATGTAGTTGCACAGA |
| 7868 | TIMP4 | CTGTTGGAACGAAAGCTCTA |
| 7869 | TIMP4 | TGTGCAACTACATCGAGCCC |
| 7870 | TIMP4 | CAGAAGCAGTATCTCTTGAC |
| 7871 | TIMP4 | CAGTCAAGAGATACTGCTTC |
| 7872 | TIRAP | CGATTCATGTACTACGTCGA |
| 7873 | TIRAP | CATCGACGTAGTACATGAAT |
| 7874 | TIRAP | TCTCGGCCTAAGAAGCCTCT |
| 7875 | TIRAP | TCACCAGCCATCTTGCCTAG |
| 7876 | TIRAP | TCGGACACTATAGCGCCGCC |
| 7877 | TIRAP | AGGCTGTGAAGCATCGCTGG |
| 7878 | TK1 | TGCCTATGACAGCCACGCCC |
| 7879 | TK1 | CGCCTGCCTGCTCCGAGACG |
| 7880 | TK1 | GGCACTTGTACTGAGCAATC |
| 7881 | TK1 | GCTGCTGTAGCGAGTGTCTT |
| 7882 | TK1 | CAAGACCCGGGGGCAGATCC |
| 7883 | TK1 | AACCTGCCCACTGTGCTGCC |
| 7884 | TK2 | TGTACCACGATGCCTCTCGC |
| 7885 | TK2 | AACTACAGTACCTTCTATAC |
| 7886 | TK2 | ACGAGTATGCCTGTCCAGCA |

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|---|---|---|
| 7887 | TK2 | TCCTTTAGGTGTCATCTGTA |
| 7888 | TK2 | TAGCGTAAGACCCCAGCGAG |
| 7889 | TK2 | TTGTAGAAAACCTGTATAGA |
| 7890 | TLR2 | GTTAACGTTTCCACTTTACC |
| 7891 | TLR2 | TTCCCGCTGAGCCTCGTCCA |
| 7892 | TLR2 | TATCTAATTTATCGTCTTCC |
| 7893 | TLR2 | GGTTCAGGATGTCCGCCTCT |
| 7894 | TLR2 | TGTGACATTCCGACACCGAG |
| 7895 | TLR2 | GGAACTGCGAGATACTGATT |
| 7896 | TMBIM1 | AACCTGTCAGCGCCTTTGTG |
| 7897 | TMBIM1 | GTGGACTTCACCTCGTGCAC |
| 7898 | TMBIM1 | TAAAAGTGTGTCGCACTTTC |
| 7899 | TMBIM1 | TAGTGACAATCCCAGTCACC |
| 7900 | TMBIM1 | AGCCACATTTCTCCTCACAA |
| 7901 | TMBIM1 | TCTCCTCCCCATCATAGCCA |
| 7902 | TMC2 | GCAGGAGAAAGCGCGACGAG |
| 7903 | TMC2 | ACAGCACGAGGCGGAGTGAA |
| 7904 | TMC2 | TCTCCCCGGAGGAAGCAAAC |
| 7905 | TMC2 | AAGAGCGGCTCTCCACACAC |
| 7906 | TMC2 | GCTGCTGACCATGAGCCACC |
| 7907 | TMC2 | TGGACTCACCTTCCTCTTTC |
| 7908 | TMED2 | CGGCTTCCTGGACATCGACG |
| 7909 | TMED2 | AACGAAATAGCCCGAGACCG |
| 7910 | TMED2 | GACAGCTGTAAAGCACGAAC |
| 7911 | TMED2 | AATGATCAATGAGCTAGCAG |
| 7912 | TMED2 | GGCTCCAAAAGGACAAGATA |
| 7913 | TMED2 | CGACAACACAAACAGCAGAG |
| 7914 | TMED5 | TAAAGGTGAAGTCGCTATCG |
| 7915 | TMED5 | TTGGTACTCGATCTCCAGCG |
| 7916 | TMED5 | CCTGTTCTCCCATATTATCC |
| 7917 | TMED5 | TACAGTGTAGAGACTGAAGT |
| 7918 | TMED5 | GTGCAAATAAGACTGCATCT |
| 7919 | TMED5 | TTCCATCTTGCCTCTCCAGA |
| 7920 | TMED6 | TAATCTGGCCCCGAACACCC |
| 7921 | TMED6 | CAAACTATAACTACGTGAAC |
| 7922 | TMED6 | AGTCATATCGATCAGCTCCA |
| 7923 | TMED6 | ACTACAACTTTGCCCGGATG |
| 7924 | TMED6 | TGAATCTAGTGACGTCTGCC |
| 7925 | TMED6 | TTGGCAGGTTCAGCGGACAG |
| 7926 | TMEM127 | CGGAGGCACCTGTTCGCGCC |
| 7927 | TMEM127 | GTGCACATAGCCCAACACGT |
| 7928 | TMEM127 | CGACGAGTGATCTTCAGAGC |
| 7929 | TMEM127 | CTGCAGTGTGCCACCGTCAT |
| 7930 | TMEM127 | CGGCGAAGGTGACATAGACC |
| 7931 | TMEM127 | TGCCTTCGCCCATATCCTAA |
| 7932 | TMEM159 | CTTCGTATCACTCGCCATGT |
| 7933 | TMEM159 | CTTGGACAGCCATCCGTTTC |
| 7934 | TMEM159 | GAGTATCTCAAGGGACTTGC |
| 7935 | TMEM159 | CTGTCCAAGTACTGACCCAC |

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|---|---|---|
| 7936 | TMEM159 | TGCTATCATCATCCCCGACA |
| 7937 | TMEM159 | CATGAAGTCTGCAGAATTCG |
| 7938 | TMEM165 | GGACCCCTATGGTGTAGCCG |
| 7939 | TMEM165 | TTACTGCCAATCCCGTGCAC |
| 7940 | TMEM165 | GTTATAGCGCATTGCCATGA |
| 7941 | TMEM165 | CTATAACCGCCTGACCGTGC |
| 7942 | TMEM165 | GTACCCGTTTCAACATCTCC |
| 7943 | TMEM165 | AGTTCCTCTTGACCCTCATC |
| 7944 | TMEM170A | TTGTGCCGCGGGTGGGCAAC |
| 7945 | TMEM170A | TGGCGACGGGATGGAGCGCG |
| 7946 | TMEM170A | AGTAGCTAAAATCCGTAAAA |
| 7947 | TMEM170A | ACCATTTGAAGCCCTCACAC |
| 7948 | TMEM170A | ATCGTGGGACCAATTACTGC |
| 7949 | TMEM170A | AAGAGGGCCAGTAATCCAGC |
| 7950 | TMEM175 | CGCGTGGAAGCCTTCAGCGA |
| 7951 | TMEM175 | GGCGTAGACTCCGTCGCTGA |
| 7952 | TMEM175 | GTTCTGGGGAGATCTCCGTG |
| 7953 | TMEM175 | AGTTCGACAGAAGTGTACAG |
| 7954 | TMEM175 | GACCTTTCTCATCGTGACAG |
| 7955 | TMEM175 | AAATACTCACCAGGTTGAGC |
| 7956 | TMEM232 | TCAAGCACGTTATTCAACTG |
| 7957 | TMEM232 | GATATTCTACCGTATAAATA |
| 7958 | TMEM232 | TTTCAGGTTGGATTCAGTAC |
| 7959 | TMEM232 | GGAGGCTGCCAAATTAAACA |
| 7960 | TMEM232 | AACTTTCTAGATGACCATGC |
| 7961 | TMEM232 | ATGAAATTAACCACCTGCTC |
| 7962 | TMEM25 | GGTGGTGGCCACCAATGACG |
| 7963 | TMEM25 | TGGATGCGCAGAACTACCCC |
| 7964 | TMEM25 | AACGCCACGCCTTCACCTGC |
| 7965 | TMEM25 | TCCCACGCTCAGCAGTCTTG |
| 7966 | TMEM25 | GGCACCCATCTCTGATATCA |
| 7967 | TMEM25 | AGTTACCTTGATATCAGAGA |
| 7968 | TMEM38A | GGTGCGAGTCCGCAAGATCG |
| 7969 | TMEM38A | TGGTTCGTCATGATTGCAAC |
| 7970 | TMEM38A | CGCACAGCCAGGACGCGATG |
| 7971 | TMEM38A | TTGCTGAAGTAATCGATCAG |
| 7972 | TMEM38A | AGCTGAGCGCCAGTTCGCCC |
| 7973 | TMEM38A | GCTGCTCAAAGTTGGACATG |
| 7974 | TMEM40 | GTTGGCATCTACTTCGGACT |
| 7975 | TMEM40 | GTGTGTTATCACTATTACGC |
| 7976 | TMEM40 | TAGTCCGAAGTAGATGCCAA |
| 7977 | TMEM40 | AGCTCATCCTTCAAAACGTC |
| 7978 | TMEM40 | ATAGTGATAACACACCAGCA |
| 7979 | TMEM40 | AAGGATGAGCTTCAACTCTA |
| 7980 | TMEM44 | CCCGACGGTGTCACACAGAC |
| 7981 | TMEM44 | ACGCAGCACACAGTGCCGAC |
| 7982 | TMEM44 | CAGATCGGGAAGCCCGAGAG |
| 7983 | TMEM44 | TCACTAAGTCAATAGCTGCT |
| 7984 | TMEM44 | TCTGTGGGTTGCTGTCCCGA |

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|---|---|---|
| 7985 | TMEM44 | ACCTGAATTAGACTTGAATT |
| 7986 | TMEM86B | CCATATCCGGCTCGAGGTGC |
| 7987 | TMEM86B | GAGGCAGAAGTACACGCAGC |
| 7988 | TMEM86B | CAAAGCGCCCAGATGTCTGC |
| 7989 | TMEM86B | CCGCCCACCTCCTCTACGTC |
| 7990 | TMEM86B | GGGCTGAGCAGTGAGTCTTC |
| 7991 | TMEM86B | GAAGACTCACTGCTCAGCCC |
| 7992 | TMPRSS6 | CTCGGGGTCCACTTCGTACT |
| 7993 | TMPRSS6 | CTTCGGCGGGGGTGCTACTC |
| 7994 | TMPRSS6 | TCCAAATCCCCGAGCACCGC |
| 7995 | TMPRSS6 | CAGGCCTTGAACATCCCCTC |
| 7996 | TMPRSS6 | GCTCATCACCAGCACCCGCC |
| 7997 | TMPRSS6 | TCCAGCTCCGTCTATTCCTT |
| 7998 | TMTC2 | ACAACAATGTTCTCCGTAGA |
| 7999 | TMTC2 | TAGCACCCACTGTAATCAGT |
| 8000 | TMTC2 | TTTGTACTACCGCAGCAACA |
| 8001 | TMTC2 | TTGGCAGCATGGGGTAACCT |
| 8002 | TMTC2 | CATTGGGAGCAGGCCTACCC |
| 8003 | TMTC2 | TATTACTTACAAGCCAGGGT |
| 8004 | TNNI3 | CGTGGCATAAGCGCGGTAGT |
| 8005 | TNNI3 | CAACTACCGCGCTTATGCCA |
| 8006 | TNNI3 | TGAGTCTCAGCATGGCGGAT |
| 8007 | TNNI3 | TCCTTCCAGGAGCAGCGATG |
| 8008 | TNNI3 | CCCCGTCCCACCTTGGCGTG |
| 8009 | TNNI3 | GAGCGGCGTCTGATTGGGGC |
| 8010 | TNP1 | CAAGAGCCGATCTCCTCACA |
| 8011 | TNP1 | AGCCGCAAATTAAAGAGTCA |
| 8012 | TNP1 | TGGGGGCTCACAAGTGGGAG |
| 8013 | TNP1 | CAGCAAAAGAAAATACCGTA |
| 8014 | TNP1 | TGCCATGACTCTTTAATTTG |
| 8015 | TNP1 | GCAACCTGAAAAGTAGGAAA |
| 8016 | TNP2 | GGTACCTGAGCTCCGCGTCT |
| 8017 | TNP2 | GTACACCTGCTGGATCCTCT |
| 8018 | TNP2 | CTTTGGTGGTGGACTAGTGT |
| 8019 | TNP2 | AGGTGTACAAAACCAAGACG |
| 8020 | TNP2 | AGTTGCAGACAGAGCCATCG |
| 8021 | TNP2 | TCCAGTTGGGTTGCGGTGGC |
| 8022 | TNS1 | GCATGGAGCTTCGTGATGTC |
| 8023 | TNS1 | AGAACCGCTTCATTGCAAAC |
| 8024 | TNS1 | TGTAGAACAACGACATTGTG |
| 8025 | TNS1 | TGCAATGAAGCGGTTCTATG |
| 8026 | TNS1 | CATCACGAAGCTCCATGCCA |
| 8027 | TNS1 | TGTCGTTGTTCTACACAACA |
| 8028 | TOLLIP | CGTGGGCCGACTGAACATCA |
| 8029 | TOLLIP | ATGGCGCCAAGAATCCCCGC |
| 8030 | TOLLIP | TCTCGTACACCGCGTAGCCC |
| 8031 | TOLLIP | TCACCGCGTAGGACATGACG |
| 8032 | TOLLIP | GTACATCGGTGAGCTCCCGC |
| 8033 | TOLLIP | AATGCGGTCGTCCATGGAGA |

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| 8034 | TOP1 | GAAGCGGATTTCCGATTGAA |
| 8035 | TOP1 | CCCTTACCTGTTGCTATGCT |
| 8036 | TOP1 | AAAAGTCCAAGCATAGCAAC |
| 8037 | TOP1 | TGAGCTTCCATCTTTGTGTT |
| 8038 | TOP1 | TGAAAAGAAACACAAAGAGA |
| 8039 | TOP1 | AACACAAAGATCGAGAACAC |
| 8040 | TOX2 | GGACGTCCGCCTGTACCCCT |
| 8041 | TOX2 | GGGGTACAGGCGGACGTCCA |
| 8042 | TOX2 | AGTCTTCGTTGTTCTCGCTC |
| 8043 | TOX2 | GCATTGCCGGGCGACCCAGC |
| 8044 | TOX2 | GTCCCAGCTCATCTCGCAGA |
| 8045 | TOX2 | AGCTACCACTCGCTGTGCCA |
| 8046 | TOX3 | GGACGATGGACCGCATGATC |
| 8047 | TOX3 | TGCGTTCTTCGCTGCCAGTG |
| 8048 | TOX3 | ATGACCGATGCTGCGCGTTC |
| 8049 | TOX3 | AAGTCTCTCCTCAATGCGCC |
| 8050 | TOX3 | CTTTCAGATAGGTAGTTATC |
| 8051 | TOX3 | CAAAACCCCAATGCAACCTT |
| 8052 | TP53 | CCGGTTCATGCCGCCCATGC |
| 8053 | TP53 | CGCTATCTGAGCAGCGCTCA |
| 8054 | TP53 | CCCCGGACGATATTGAACAA |
| 8055 | TP53 | GAGCGCTGCTCAGATAGCGA |
| 8056 | TP53 | CCCCTTGCCGTCCCAAGCAA |
| 8057 | TP53 | ACTTCCTGAAAACAACGTTC |
| 8058 | TP63 | GCCCTGACCCTTACATCCAG |
| 8059 | TP63 | CAAACTCACCGCTGGATGTA |
| 8060 | TP63 | GCCCATTGACTTGAACTTTG |
| 8061 | TP63 | TTTGTCGCACCATCTTCTGA |
| 8062 | TP63 | CCAGAAAATCCCAGATATGC |
| 8063 | TP63 | AAACCCCAGCTCATTTCTCT |
| 8064 | TPI1 | GAGGGCTTACCGGTGTCGGC |
| 8065 | TPI1 | GAACGGGCGGAAGCAGAGTC |
| 8066 | TPI1 | TGTCTTTGGGGAGTCAGATG |
| 8067 | TPI1 | ACAGCTGATTGGGCAGAAAG |
| 8068 | TPI1 | GCCTTCTCTCTGAGTGCCCC |
| 8069 | TPI1 | ATCTAGCTTCTCCCCAATGC |
| 8070 | TPMT | ACTTACCATTTGCGATCACC |
| 8071 | TPMT | TTTCATTACAGAGTTCTTCG |
| 8072 | TPMT | TCAGTCCACTCTTGCCTTTA |
| 8073 | TPMT | GCATTAGTTGCCATCAATCC |
| 8074 | TPMT | CATTTAGATACTTTCCTTAA |
| 8075 | TPMT | CACCAACTACACTGTGTCCC |
| 8076 | TPSD1 | GCCGCCGCCATACCCGCTGA |
| 8077 | TPSD1 | CAACAATGCCCGTTTGCTGC |
| 8078 | TPSD1 | CAGCAGGGCGATGTCCGCCC |
| 8079 | TPSD1 | TGTGATATTCCGCGTTGCAA |
| 8080 | TPSD1 | CAGTTCTACATCATCCAGAC |
| 8081 | TPSD1 | CTGCAGCAAACGGGCATTGT |
| 8082 | TPTE | CATTATTGTGATTCTTCTGC |

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|---|---|---|
| 8083 | TPTE | CAGCAGAAGAATCACAATAA |
| 8084 | TPTE | ATTGTATCATCCTTTGCATT |
| 8085 | TPTE | TCTCACATACCCAAATGCAA |
| 8086 | TPTE | AACATCCATGAGAAAAAATA |
| 8087 | TPTE | CAGCAAACTTTATATTCCTT |
| 8088 | TRABD2A | TAATGCCACGCTACCACCTC |
| 8089 | TRABD2A | ATGTCCCGTACACCCGAGTT |
| 8090 | TRABD2A | TTGTGGATGGGTCGTCCAGC |
| 8091 | TRABD2A | CAGCGATCTGTGGGTCCGCC |
| 8092 | TRABD2A | CTTCTGGTGCCGGTACTTCC |
| 8093 | TRABD2A | TCCGCTTGTAGATCAGCTCC |
| 8094 | TRAF5 | GTACCGGCCCAGAATAACCT |
| 8095 | TRAF5 | GGTTTCATCCGCCAGAATTC |
| 8096 | TRAF5 | CAGTATAGAGTACCAGTTTG |
| 8097 | TRAF5 | GTATATTGCAGCAATGCTCC |
| 8098 | TRAF5 | AATCTGCCCTGTAGATAAAG |
| 8099 | TRAF5 | TTGATGACCTCTTTATCTAC |
| 8100 | TRAK2 | GAATATGGCTCTTCGATCCA |
| 8101 | TRAK2 | GAGTCCTTTAGCTTATCTCA |
| 8102 | TRAK2 | CATCAGATGCATGCTGCCGC |
| 8103 | TRAK2 | TATTAGTTCTAGGCACAGAC |
| 8104 | TRAK2 | GTCGATGTCATTGTAAGTTT |
| 8105 | TRAK2 | AAGAACAACTACCACAGTAT |
| 8106 | TREH | ACTTCCTGGGCCCGACGTAA |
| 8107 | TREH | GCTCCTAAACCAAGTTCAAA |
| 8108 | TREH | TTTACGTCGGGCCCAGGAAG |
| 8109 | TREH | CCACAAACTGCTTGTCATCC |
| 8110 | TREH | CCCCAGTATGACGTCAGCAA |
| 8111 | TREH | AGACCTTCACTGAGCTGTCC |
| 8112 | TRIAP1 | ACGACCAGTGCTTCAATCGC |
| 8113 | TRIAP1 | TTCGCCGAGAAATTTCTCAA |
| 8114 | TRIAP1 | AGAGATTCCTATTGAAGGAC |
| 8115 | TRIAP1 | ATGAACTCCAGTCCTTCAAT |
| 8116 | TRIAP1 | CGAACCAGCGATTGAAGCAC |
| 8117 | TRIAP1 | CGCTTGAAGAGGTCGGTGCA |
| 8118 | TRIB3 | ACTTCGAGCTCGTTTCTGGA |
| 8119 | TRIB3 | GTCCAGAAACGAGCTCGAAG |
| 8120 | TRIB3 | GGCGGATCTTGCCGAAGAGC |
| 8121 | TRIB3 | TCCGAGTGAAAAAGGCGTAG |
| 8122 | TRIB3 | TTGTCTTCGCTGACCGTGAG |
| 8123 | TRIB3 | ATCTGGCCCAGTCAGCACGC |
| 8124 | TRIM73 | GCCGGTCCTCCAGCTCCAGC |
| 8125 | TRIM73 | CCCTGGGGACCCAGAGCCCA |
| 8126 | TRIM73 | CACTCACGACGATTCGGGTC |
| 8127 | TRIM73 | CCTCTTCTCTGAGCTGAAGC |
| 8128 | TRIM73 | CACTCACCCAGATGAACTCA |
| 8129 | TRIM73 | ATGAGTCGGATGTCTTCAGC |
| 8130 | TRPM3 | AGATTACCTATGGGGGTCTT |
| 8131 | TRPM3 | AGCGTGGATATTCACTGGAG |

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| 8132 | TRPM3 | AAGCTCCAACTGCCATTCCT |
| 8133 | TRPM3 | CCAGCACCAAAGACCCCCAT |
| 8134 | TRPM3 | CCTCTTACACCTGATGACCA |
| 8135 | TRPM3 | AAGCTTCTCATCTCTGTCCA |
| 8136 | TRPM8 | GTCTGTGCTCCGAGACGCGC |
| 8137 | TRPM8 | GAATTTCCTACCGACGCCTT |
| 8138 | TRPM8 | CCCTGTACTCCAGCGCGTCT |
| 8139 | TRPM8 | TTACGTGGCCTTGGAATCTT |
| 8140 | TRPM8 | GGATATTCAGTTTGAGACAC |
| 8141 | TRPM8 | CTTCTTTACCAAAGATTCCA |
| 8142 | TSG101 | TATTTGGTGGCCCCGTTGCC |
| 8143 | TSG101 | GGCGGATAGGATGCCGAAAT |
| 8144 | TSG101 | TCCAGTAGCCATAGGCATAT |
| 8145 | TSG101 | TGACAGTTTCACGTACAGTT |
| 8146 | TSG101 | ACAATCCCTGTGCCTTATAG |
| 8147 | TSG101 | TCACCATATGAATCCAAAAC |
| 8148 | TSPY1 | CTTCATCTTCGTCAGTGATC |
| 8149 | TSPY1 | TGAAGACATGCTGAGCTACA |
| 8150 | TSPY1 | GATGTTCACCAGATATTCCT |
| 8151 | TSPY1 | GCAAGATCATGTTGTTCTTT |
| 8152 | TSPY1 | TGTTAGATCCTGCGAAGTTG |
| 8153 | TSPY1 | CTCATTCCACTCCAATTGAG |
| 8154 | TSPY2 | ACAACATTGGCCCAGAAGCC |
| 8155 | TSPY2 | AGCCCGGCGCATGCGCCCTG |
| 8156 | TSPY2 | CTTCATCTTCGTCAGTGATC |
| 8157 | TSPY2 | TGAAGACATGCTGAGCTACA |
| 8158 | TSPY2 | GATGTTCACCAGATATTCCT |
| 8159 | TSPY2 | GCAAGATCATGTTGTTCTTT |
| 8160 | TSPY3 | TACGCCTCCACTTCATAATC |
| 8161 | TSPY3 | CTTCATCTTCGTCAGTGATC |
| 8162 | TSPY3 | TGAAGACATGCTGAGCTACA |
| 8163 | TSPY3 | GATGTTCACCAGATATTCCT |
| 8164 | TSPY3 | GCAAGATCATGTTGTTCTTT |
| 8165 | TSPY3 | TGTTAGATCCTGCGAAGTTG |
| 8166 | TSPY4 | CTTCATCTTCGTCAGTGATC |
| 8167 | TSPY4 | TGAAGACATGCTGAGCTACA |
| 8168 | TSPY4 | GATGTTCACCAGATATTCCT |
| 8169 | TSPY4 | GCAAGATCATGTTGTTCTTT |
| 8170 | TSPY4 | TGTTAGATCCTGCGAAGTTG |
| 8171 | TSPY4 | CTCATTCCACTCCAATTGAG |
| 8172 | TSPY8 | TAATCCAGATACCACTCAAT |
| 8173 | TSPY8 | CTTCATCTTCGTCAGTGATC |
| 8174 | TSPY8 | TGAAGACATGCTGAGCTACA |
| 8175 | TSPY8 | GATGTTCACCAGATATTCCT |
| 8176 | TSPY8 | GCAAGATCATGTTGTTCTTT |
| 8177 | TSPY8 | TGTTAGATCCTGCGAAGTTG |
| 8178 | TSPYL1 | GCGGATGCGTCGACACTACC |
| 8179 | TSPYL1 | GAGCCCGACGTCGCCCGCTA |
| 8180 | TSPYL1 | CTCCCTTAGCGGGCGACGTC |

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|---|---|---|
| 8181 | TSPYL1 | GGTAAGATCCTCCGGCCGAG |
| 8182 | TSPYL1 | CCCTAATCATGGCGGACAAC |
| 8183 | TSPYL1 | ACTCCCCAGATCCGAGTTGT |
| 8184 | TSPYL2 | GAGTTCCAGCGCAACCGCTC |
| 8185 | TSPYL2 | ACTTACCTGAGCGGTTGCGC |
| 8186 | TSPYL2 | CATCCTGGTTCCCGTGACGA |
| 8187 | TSPYL2 | TCTCTCAGGTAGTAGCGTAG |
| 8188 | TSPYL2 | GAACCCCAGGCCCGTCGTCA |
| 8189 | TSPYL2 | CCGCTACTTGACCAATCTGC |
| 8190 | TSPYL4 | GCTTCCAGACCTTTCGTAGA |
| 8191 | TSPYL4 | GACTAAAAAACGCGCCATCT |
| 8192 | TSPYL4 | TGAAACTTCTGCGCTGCATG |
| 8193 | TSPYL4 | CTTCAGCTTGAGCGCAAGTT |
| 8194 | TSPYL4 | CAACCCCTACTTCCGAAATG |
| 8195 | TSPYL4 | AAGGATCTGGCGCTCTCCAC |
| 8196 | TSPYL5 | CGCATCTCTCTCGGAGCGCC |
| 8197 | TSPYL5 | AGTCCTCCCGCGCCAAAAAC |
| 8198 | TSPYL5 | CCGAAAAATGCCCCCCGCGT |
| 8199 | TSPYL5 | AGGACTTTCGACCCCGACTT |
| 8200 | TSPYL5 | ACATGAACGCCCAGGCGGAC |
| 8201 | TSPYL5 | TCCATGCTGCCTTCCGTCGC |
| 8202 | TSPYL6 | GACCCGCATCGACCAAGATG |
| 8203 | TSPYL6 | CCATAGAGCTAGACGTCGCC |
| 8204 | TSPYL6 | CCAGGCGACGTCTAGCTCTA |
| 8205 | TSPYL6 | CAATCGTGTTCCCACCGCCC |
| 8206 | TSPYL6 | GGTCAGATCCTTCGGCCAAG |
| 8207 | TSPYL6 | CGCTACTCTCGACTATGCTC |
| 8208 | TSTA3 | GAACGACAACGTCCTGCACT |
| 8209 | TSTA3 | GACCCGCGCCCTGTTTGAGA |
| 8210 | TSTA3 | GAGGCAGTTCATATACTCGC |
| 8211 | TSTA3 | GAGTATATGAACTGCCTCCG |
| 8212 | TSTA3 | CCTGCGGGAGTACAATGAAG |
| 8213 | TSTA3 | CTACCCGATAGATGAGACCA |
| 8214 | TTC19 | GTATCTATGCTGCGCAGAAC |
| 8215 | TTC19 | GTTCTGCGCAGCATAGATAC |
| 8216 | TTC19 | AGCCGACGGGGCCGCTGCCG |
| 8217 | TTC19 | CAGCGCTCGCCTGGTTCTCG |
| 8218 | TTC19 | GCAACAATGAGTTACCTCCT |
| 8219 | TTC19 | TTAGCAGAAGACATTATGTC |
| 8220 | TTC33 | CTCTTGGGCAAGAACGCTCC |
| 8221 | TTC33 | GGCTTCATGCCATTAAACGT |
| 8222 | TTC33 | GATGGTGCTACACCACCAGA |
| 8223 | TTC33 | CCTATACGAGATGAAATCAC |
| 8224 | TTC33 | ATGTAGTTGACAACGATGAA |
| 8225 | TTC33 | CCTGTGATTTCATCTCGTAT |
| 8226 | TTC39B | TGTCCTGACCTTCGAGCAAC |
| 8227 | TTC39B | CCAGGGGCGAAGCAATTCTA |
| 8228 | TTC39B | CTGGATGTCCTGTTGCTCGA |
| 8229 | TTC39B | CCTTAGAATTGCTTCGCCCC |

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|---|---|---|
| 8230 | TTC39B | TTACATTGAGATGGTTTCCA |
| 8231 | TTC39B | GGTTTGTAAAGCGTCCTTCA |
| 8232 | TTC39C | CTGAAGCCGATCAACCATAG |
| 8233 | TTC39C | CCGAAAATCCGCCCCCTCTA |
| 8234 | TTC39C | GAATGCCATGATGACATTTG |
| 8235 | TTC39C | TACCAAAAAACTGACAAAGC |
| 8236 | TTC39C | TTCTTCCTCAAATGTCATCA |
| 8237 | TTC39C | GATAATCATAGCTGACTGCC |
| 8238 | TTI1 | GCAGCGTTCCATCACGTCCA |
| 8239 | TTI1 | ACCAGTTTACTCGCACACGC |
| 8240 | TTI1 | AAATCTGCAAATCCGCCTGA |
| 8241 | TTI1 | GTGGTGACTTTCTTCGCAGC |
| 8242 | TTI1 | ACAGCCCGTGAAATTACAAG |
| 8243 | TTI1 | TGCCCAAGATTACCTGTGTC |
| 8244 | TTLL11 | ACAGTTCAACTACCTGCGCC |
| 8245 | TTLL11 | CAGGCTTTCGTACCTTCATA |
| 8246 | TTLL11 | CTCATGTTCGATTCTCATAC |
| 8247 | TTLL11 | TGGAAACTTGTTCACTTGAC |
| 8248 | TTLL11 | GCTTGCCTTGTGACATCTAC |
| 8249 | TTLL11 | GCATTTACTTCAAGTAGTAT |
| 8250 | TTN | GCAGCCGTTACAAAGCGTTG |
| 8251 | TTN | CGGGGATCGTCAGTTTAGCG |
| 8252 | TTN | GTAAATGCCACCAATAGCGT |
| 8253 | TTN | AGTAGCTCTTCCAACGCTAT |
| 8254 | TTN | AGTACCACAACGCTTTGTAA |
| 8255 | TTN | GTGCAGATCTCCTTTAGCGA |
| 8256 | TTYH1 | AGGTTCAGAACATAAGGGTC |
| 8257 | TTYH1 | GCCACTTGCTCTGCTTCGCC |
| 8258 | TTYH1 | TTATGTTCTGAACCTGACCC |
| 8259 | TTYH1 | CCCAGCTCAGGACGAGAACC |
| 8260 | TTYH1 | GCCTGGCGAAGCAGAGCAAG |
| 8261 | TTYH1 | CCTGGAGGCAGCCACGGCCG |
| 8262 | TUBB3 | CGAGATGTACGAAGACGACG |
| 8263 | TUBB3 | GCCTCACCTTGGCCCCGATC |
| 8264 | TUBB3 | GTCGCCCACGTAGTTGCCGC |
| 8265 | TUBB3 | GATGGACAGCGTGGCGTTGT |
| 8266 | TUBB3 | ACCATGGACAGTGTCCGCTC |
| 8267 | TUBB3 | ACTCGGACTTGCAGCTGGAG |
| 8268 | TYMS | GAAGAATCATCATGTGCGCT |
| 8269 | TYMS | TGACAACCAAACGTGTGTTC |
| 8270 | TYMS | ACCCTTCCAGAACACACGTT |
| 8271 | TYMS | TTCTACAGATTATTCAGGAC |
| 8272 | TYMS | AGGTGACTTTATACACACTT |
| 8273 | TYMS | CATCGAGCCACTGAAAATTC |
| 8274 | UBE2QL1 | TGGACGAGAGCCTGTTCGAC |
| 8275 | UBE2QL1 | GGCTGCGAACTGGCGCATGA |
| 8276 | UBE2QL1 | GTCACCCCGCCCGTGTCCGA |
| 8277 | UBE2QL1 | CAGACATCAGCCGTCGGACA |
| 8278 | UBE2QL1 | TAGCGACCGCTTCATCTCCG |

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|---|---|---|
| 8279 | UBE2QL1 | GCTTCACGTTCCAGTCGAAC |
| 8280 | UBE4B | TCATGTTGTAGATTCGACGG |
| 8281 | UBE4B | GGCTTACCTGATGCACCTAT |
| 8282 | UBE4B | CACCATCGATATCCATGCTC |
| 8283 | UBE4B | GAGACTGAGATTGCGTTTCA |
| 8284 | UBE4B | GGAGGAGCTGAGCGCTGATG |
| 8285 | UBE4B | TCCTGGGGCTGATGCCGCTA |
| 8286 | UBR1 | ACGCTGTCCGTTGAATGAAG |
| 8287 | UBR1 | TATCAGATGCATACTTCTAC |
| 8288 | UBR1 | TCATAAAAATCATCGTTACA |
| 8289 | UBR1 | TCCAACATGTGTACTCTGTA |
| 8290 | UBR1 | ATGTCGTAGAAATGACTATA |
| 8291 | UBR1 | TTTATAGTACCTGCTCTTCC |
| 8292 | UBR7 | GCTTATGCTGCACAATTGGC |
| 8293 | UBR7 | AAAAGAACAACGTTTCATGC |
| 8294 | UBR7 | CAAGCTAAACAAATTCCTGC |
| 8295 | UBR7 | GCTTGCAGTTATGAATGTCA |
| 8296 | UBR7 | AAACAGCAAGTTTAAAAATT |
| 8297 | UBR7 | GGTGCCATTCCCCCTGAGAG |
| 8298 | UCHL5 | CTGATAATGTCTCGCCTAAA |
| 8299 | UCHL5 | AAGTACACAACAGTTTCGCC |
| 8300 | UCHL5 | GTTACTGAACTGTACCCACC |
| 8301 | UCHL5 | AACTCCATATTTCTTCTACT |
| 8302 | UCHL5 | GAGCCCAAGTAGAAGAAATA |
| 8303 | UCHL5 | GTTCAGTAACACACTCACTA |
| 8304 | UCN3 | TCCTCCCAATTTGCGCCATC |
| 8305 | UCN3 | GCCCACCTGATGGCGCAAAT |
| 8306 | UCN3 | GTATCTGTACCGGGTGCCTC |
| 8307 | UCN3 | CGTCTCTGCTGCGCAGGTAG |
| 8308 | UCN3 | GCGCAGCAGAGACGCCTCTT |
| 8309 | UCN3 | TGATGTTGGTGGGGACGTCG |
| 8310 | UEVLD | ATTCCGATCACTCGATTTGC |
| 8311 | UEVLD | CACTTACCCTGATACATCAC |
| 8312 | UEVLD | ATTCTTACCATAGGTGTCCA |
| 8313 | UEVLD | GAAGATTTCAAGGTCCATCG |
| 8314 | UEVLD | TTTCCTGCAAATCGAGTGAT |
| 8315 | UEVLD | CTGTACAGGGTATTGCAGAC |
| 8316 | UMPS | TGGAGCTCATTTCCGCAATA |
| 8317 | UMPS | CTGAGAAGCTTCGATGCAAC |
| 8318 | UMPS | TTTGTGGCAGCGAATCATAA |
| 8319 | UMPS | AGATCTAGTAAATGCTCACG |
| 8320 | UMPS | GAACAGATAACTGTAGCCAA |
| 8321 | UMPS | GCCTTATACAGCTTTGCCAT |
| 8322 | UNC13B | GATCCCGCACGTATTCATTG |
| 8323 | UNC13B | TTGAGCAGTTCGTGCTACAA |
| 8324 | UNC13B | GGCTCCACAATGAATACGTG |
| 8325 | UNC13B | AACCGTCTTCTCACACACAG |
| 8326 | UNC13B | CATCCTTCTTATCTCGTTCC |
| 8327 | UNC13B | AGCGTGTACTGAAGGAGCTC |

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|---|---|---|
| 8328 | UPF3B | ATCATCGATAGTCCCGACTT |
| 8329 | UPF3B | TTGTTCAGGGATCGCTTTGA |
| 8330 | UPF3B | ATTACCTCCCACTTTGACCA |
| 8331 | UPF3B | TACTCCAGAGACACTGCTAG |
| 8332 | UPF3B | AGGACTCACCTTTATTGTCA |
| 8333 | UPF3B | ATTTCCTCTAGCAGTGTCTC |
| 8334 | USH2A | GTACACGCGTCGCCCTCCGT |
| 8335 | USH2A | GCGACGCGTGTACAGCGGCT |
| 8336 | USH2A | GGCTTGGTCCTAACAACTCC |
| 8337 | USH2A | CGTCAGTCGTGCAGATGACC |
| 8338 | USH2A | CATAGTGTTAATGGCGATGC |
| 8339 | USH2A | ATCCAATATGATACCTCTAC |
| 8340 | USP11 | CCATTATACCTTGCGTTCAA |
| 8341 | USP11 | TTCAGCCATACCGATTCTAT |
| 8342 | USP11 | CTGGGTACACTTCGACCTTC |
| 8343 | USP11 | CCAGCCACCCATTGAACGCA |
| 8344 | USP11 | GCAGTGGGAGGCATACGTGC |
| 8345 | USP11 | GGTTCCTTGTGGAGAAGCAC |
| 8346 | USP17L11 | GCTGTGTTTGTTCTTCCCTT |
| 8347 | USP17L11 | GGAGGACGACTCACTCTACT |
| 8348 | USP17L11 | CACCAAGTGCTCGTCCAACT |
| 8349 | USP17L11 | CGATGCAAGCTCACATCACA |
| 8350 | USP17L11 | TGTCTGTGTCTTCTGCGCCA |
| 8351 | USP17L11 | CCACGTCATCCAGCCCTCAC |
| 8352 | USP26 | AGCTCACTTAATGACGTATC |
| 8353 | USP26 | TACGATGATATGCGGGTGTT |
| 8354 | USP26 | GACAACACTAATGAGCCGGT |
| 8355 | USP26 | ATGGCTGCCCTATTCCTACG |
| 8356 | USP26 | TCATGCATCATGAACGCCAC |
| 8357 | USP26 | CATTCAAGCTATAGCGTTTG |
| 8358 | VAMP2 | CCAGTATTTGCGCTTGAGCT |
| 8359 | VAMP2 | CCAAGCTCAAGCGCAAATAC |
| 8360 | VAMP2 | CAGGTCTGCTACCGCTGCCA |
| 8361 | VAMP2 | CCCCCAGATGATGATCATCT |
| 8362 | VAMP2 | CTGCTGCAGTCTCCTGTTAC |
| 8363 | VAMP2 | ACTCACCTATGATGATGATG |
| 8364 | VEGFA | AGCAGCCCCCGCATCGCATC |
| 8365 | VEGFA | CTGCCATCCAATCGAGACCC |
| 8366 | VEGFA | GGAGGGCAGAATCATCACGA |
| 8367 | VEGFA | ATGCGGATCAAACCTCACCA |
| 8368 | VEGFA | AGCTCATCTCTCCTATGTGC |
| 8369 | VEGFA | GTGGTCCCAGGCTGCACCCA |
| 8370 | VEGFB | CCAGTACCTGCATCCGGACT |
| 8371 | VEGFB | GCGCTGCACAGTCACGCAGC |
| 8372 | VEGFB | GAGCACAGATCCTCATGATC |
| 8373 | VEGFB | GCTGGCACCTGCATTCACAC |
| 8374 | VEGFB | AAGTATTACCTTTCCTCTGG |
| 8375 | VEGFB | GTCTCCCAGCCTGATGCCCC |
| 8376 | VEGFC | ACATCTATACACACCTCCCG |

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| 8377 | VEGFC | CAATACCCACCGTCTTGCTG |
| 8378 | VEGFC | CTGCCGATGCATGTCTAAAC |
| 8379 | VEGFC | CCTGCCCCACCAATTACATG |
| 8380 | VEGFC | AGTCATGAGTTCATCTACAC |
| 8381 | VEGFC | CTTACCATCTCCAGCATCCG |
| 8382 | VGF | CGCCATACGCGCTCTGGCCC |
| 8383 | VGF | CGGCCGGGATAGTGGCGCGA |
| 8384 | VGF | CACGCTGACCCGAGTGAATC |
| 8385 | VGF | CAGGCGCGTATGCCCGACAG |
| 8386 | VGF | CGCTCGGAATTCCGAGCCGC |
| 8387 | VGF | ATGCTGACCACGTCGTCCGC |
| 8388 | VHL | CGCGCGTCGTGCTGCCCGTA |
| 8389 | VHL | GCCGTCGAAGTTGAGCCATA |
| 8390 | VHL | CAGGTCGCTCTACGAAGATC |
| 8391 | VHL | TGACTAGGCTCCGGACAACC |
| 8392 | VHL | TGTCCGTCAACATTGAGAGA |
| 8393 | VHL | GTGCCATCTCTCAATGTTGA |
| 8394 | VIL1 | TTGAGGAAATTGGCCCGCGC |
| 8395 | VIL1 | CGGTCTCCAAGTTGTTAGTT |
| 8396 | VIL1 | TGGTGAGGGAAGTCGCCACA |
| 8397 | VIL1 | CACCTGAGGCTTGACATGCA |
| 8398 | VIL1 | CACTCTAGCCAAAGTGGAAC |
| 8399 | VIL1 | CTCTTACCTCGTGACTGAGC |
| 8400 | VPS13D | GGCGGTAACTGAATACCAAT |
| 8401 | VPS13D | GGCGATAAAAGGGAATCTGA |
| 8402 | VPS13D | TTACCGCCTCCGTAGTTACA |
| 8403 | VPS13D | AGATCACCCAAGGGTCCACA |
| 8404 | VPS13D | CTCTCAGTTGCACTTCTCAA |
| 8405 | VPS13D | TGTTGGAAGGCCTTGTAGCC |
| 8406 | VPS26A | TTCATACCTCAAGCGGACAT |
| 8407 | VPS26A | AACCTAGCCTTTAAGCAACC |
| 8408 | VPS26A | ACAATATCGATCTCACAAAT |
| 8409 | VPS26A | AAGCCATATGAATCTTACAT |
| 8410 | VPS26A | CCCCAATAGGTATCATTTAA |
| 8411 | VPS26A | ATCGATATTGTTCTTAATGA |
| 8412 | VPS28 | TGTCCTCAGGTACGACAACA |
| 8413 | VPS28 | AGGCACTCACGCGGAACTTG |
| 8414 | VPS28 | TGAAGTTGTACAAGAACGCC |
| 8415 | VPS28 | GGTGAAGACAATGCAAGCCC |
| 8416 | VPS28 | TGCAGCCCCTGGGAACAAGC |
| 8417 | VPS28 | CCACTCACCTCATACAGCTC |
| 8418 | VPS37B | GGGGTGGCTAAGCGTCCCGC |
| 8419 | VPS37B | CTTAGCCACCCCGTTTACTG |
| 8420 | VPS37B | CCGGTTCGCCGGGCTGTCGC |
| 8421 | VPS37B | GTGCTTTCAACGTGTCCAGC |
| 8422 | VPS37B | ACGCTTGACCCAGAAATACC |
| 8423 | VPS37B | TCTGCACCATCTCCGTCAGC |
| 8424 | VPS37D | CCAAGCTGGACCGGATCGTG |
| 8425 | VPS37D | CACCGTGGATCCTACCGGTG |

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| 8426 | VPS37D | CGGGCGGCATGTACCGGGCC |
| 8427 | VPS37D | CAAATACCAGGAGCTTCGTG |
| 8428 | VPS37D | TCGGGAGCGTTCTGCCCAGC |
| 8429 | VPS37D | CAGCTTGTCCGCGCAGTTCT |
| 8430 | VPS72 | ATACACGACAAACGTTCCTT |
| 8431 | VPS72 | CGAAAGGTCAACACCCCGGC |
| 8432 | VPS72 | CATAAGAAGCGGAAGTGCCC |
| 8433 | VPS72 | CCGTCATCTTGTAGTTCTAA |
| 8434 | VPS72 | CCTGCCTCTCCTGTACCCGA |
| 8435 | VPS72 | TCCGGAGATGATGAGTATCA |
| 8436 | VRK3 | AACCAGGGCATTCTCTATGA |
| 8437 | VRK3 | TGACATCCAGGGCCGACTGA |
| 8438 | VRK3 | CTCTCTGACAGCACATGCTT |
| 8439 | VRK3 | CTTCAAGTGAGGTGGTCACT |
| 8440 | VRK3 | GCAAAAGTTCTCACTCAAAC |
| 8441 | VRK3 | TCCACCCTCACCTGTGACTC |
| 8442 | VWA1 | CCCGGACACGGACTACGACG |
| 8443 | VWA1 | GGACGCCGGCTTACGGCTCA |
| 8444 | VWA1 | CAATGAACACGGTGACGCCC |
| 8445 | VWA1 | CCTCGCGCGCGATGCTCCCC |
| 8446 | VWA1 | GCCAGGCCGAGCGCCGTCCA |
| 8447 | VWA1 | ACCGTGTTCATTGTCAGCAC |
| 8448 | VWA3A | CTTGGGCAAAATTCGGACAA |
| 8449 | VWA3A | TACACATGTTAACCAGACAC |
| 8450 | VWA3A | CAAACTAGTCATGTCTTCCA |
| 8451 | VWA3A | ATATGTTTCTGGAAAACCAT |
| 8452 | VWA3A | TCTATCAAGAGAGAATTCAG |
| 8453 | VWA3A | TTACCAGTAAGTCCTGTGTC |
| 8454 | VWF | AACTCGCGGCAGGTCATCCA |
| 8455 | VWF | AAACGCTCCTTCTCGATTAT |
| 8456 | VWF | GTACTACAAGCTGTCCGGTG |
| 8457 | VWF | GTTGCCGCTGCCATCGATCC |
| 8458 | VWF | AAGCAGCACCCCGGCAAATC |
| 8459 | VWF | CCGTGACACAGGGGGACCAA |
| 8460 | WDFY3 | AGTCCTAAGGCGTTGTCTTG |
| 8461 | WDFY3 | AGCCCACAAGACAACGCCTT |
| 8462 | WDFY3 | AACACAAGTCTCACGACTAA |
| 8463 | WDFY3 | TAGAAGCATCCAGCCTCTAC |
| 8464 | WDFY3 | ATTAATTTGTTAGCTTCCTC |
| 8465 | WDFY3 | AGAGCATCAAACAAATCCAC |
| 8466 | WDR17 | GTTTGCATATTGTGCGACCC |
| 8467 | WDR17 | TCCCATTCCAAGGCCGTAAC |
| 8468 | WDR17 | TGTACAATCACTCCACTATC |
| 8469 | WDR17 | TTTGCATTATGGAATTCGCC |
| 8470 | WDR17 | GCTAAACTCGACAGTACAAA |
| 8471 | WDR17 | GAGATGGTCCAAATGAACAG |
| 8472 | WDR20 | GTTCTTAGCGTGCGTGAGCC |
| 8473 | WDR20 | TTCCTAGTAGCCCACTCGAG |
| 8474 | WDR20 | GGAGGCTCTAGTAACTGTCC |

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| 8475 | WDR20 | TGGTTGAAGTCATGACAAGT |
| 8476 | WDR20 | AGAACTCTTGTCAGCACTTG |
| 8477 | WDR20 | AGAAAGTGTCTCTCTCCTAG |
| 8478 | WDR61 | GCTCAGCGTGCCAGCCAAAT |
| 8479 | WDR61 | TTGATGCTCATATTCGTCTT |
| 8480 | WDR61 | CCTGTTGAAGGCGTGATGAG |
| 8481 | WDR61 | GAATGCAACGTTCAGCACCC |
| 8482 | WDR61 | ACCATTTCCAGACCTTCACC |
| 8483 | WDR61 | CCCCCAAGCAACTGACCAAA |
| 8484 | WDR62 | CTAACCTGTGACCCCGGCAC |
| 8485 | WDR62 | AGCACATCTTTAACACCGCC |
| 8486 | WDR62 | ATCTGCTTACCCTGCCAGGT |
| 8487 | WDR62 | GTCACTATGTACTTCCCATC |
| 8488 | WDR62 | GATGGGAAGTACATAGTGAC |
| 8489 | WDR62 | GTGCTGCTGCTTGTTCTCCT |
| 8490 | WDR78 | ATCAACAATACCCGCCAACT |
| 8491 | WDR78 | AGTCAATCTTTCCCGTTTAT |
| 8492 | WDR78 | AGACCAAAGTCGTTCCAAGT |
| 8493 | WDR78 | GAAAGATTGACTAGTTTCAC |
| 8494 | WDR78 | GCATCATCCTTTCAACATAT |
| 8495 | WDR78 | TGCCTAATCTGTTTCTACAA |
| 8496 | WFDC11 | TGGTCAGCCTCATGAAGCTC |
| 8497 | WFDC11 | CCTATTGTGGAAACATCTGC |
| 8498 | WFDC11 | CCAGCAGATGTTTCCACAAT |
| 8499 | WFDC11 | GCTCATGACATTCTTCTGTA |
| 8500 | WFDC11 | AATTGTTACTTGAAGAATGC |
| 8501 | WFDC11 | TTGGTACATTCTTTGACATT |
| 8502 | WFDC13 | AATCTTCCTGCATTGTACAC |
| 8503 | WFDC13 | AAACATTTCAAAAGCGCAAC |
| 8504 | WFDC13 | CCTACTCAGAACACGCTGCT |
| 8505 | WFDC13 | GGAAATATGCCTCAGTTGGC |
| 8506 | WFDC13 | GTTCTGCCTAGCACTGCAGC |
| 8507 | WFDC13 | GTCATCATGCCTGCCAACTG |
| 8508 | WFDC5 | GATTGCCGGGATCCTGCCAG |
| 8509 | WFDC5 | ACTGGCTGTCTTCCACGCAC |
| 8510 | WFDC5 | TGATGGGCCCTGCCTCCTAT |
| 8511 | WFDC5 | AATCCCGCCCGCAGGCGCTG |
| 8512 | WFDC5 | AGTCAGCTGCCTGCTGTCTT |
| 8513 | WFDC5 | TTCTTCCTGCCAAAGACAGC |
| 8514 | WNT16 | TGCTCCGATGATGTCCAGTA |
| 8515 | WNT16 | GGCGCCCATCGGGGCGGTAG |
| 8516 | WNT16 | TGGCCCGCTTGTGCGCGCTG |
| 8517 | WNT16 | CCGAGGTTACAACACCCATG |
| 8518 | WNT16 | TGCTGAGCCGCCGTTCTGCA |
| 8519 | WNT16 | TGCTCAGCTCGTAGCCAAAG |
| 8520 | WNT3 | CGTAGATGCGAATACACTCC |
| 8521 | WNT3 | GATCGCAGCCATCGATGCCG |
| 8522 | WNT3 | CTTCGTTCACGCCATCGCCT |
| 8523 | WNT3 | TCCTCGCTGGCTACCCAATT |

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| 8524 | WNT3 | CGGCTGTGACTCGCATCATA |
| 8525 | WNT3 | TTTGGGCCCGTCCTCGACAA |
| 8526 | WNT5A | TGCGCTCACCGCGTATGTGA |
| 8527 | WNT5A | GAGGATGCGAGCACTCTCGT |
| 8528 | WNT5A | AGTATCAATTCCGACATCGA |
| 8529 | WNT5A | TGCAGTTCCACCTTCGATGT |
| 8530 | WNT5A | ATGAACTTACCACCAAGAAT |
| 8531 | WNT5A | GTCTTCCAAGTTCTTCCTAG |
| 8532 | WSB1 | GCACAGTAAAGCTTGTTCCG |
| 8533 | WSB1 | CAGTCTATAATATGTTCACG |
| 8534 | WSB1 | TTAGTGAGATTACGTACTAT |
| 8535 | WSB1 | CAGTATGATCTACCAAGTTA |
| 8536 | WSB1 | GATCAGCTACTTCTTGCTAC |
| 8537 | WSB1 | TCTTCTATGCTGTGTTCAGT |
| 8538 | WWOX | TGCTGCCGTCGTATCTTTGC |
| 8539 | WWOX | TCCACAGTAAACGCCAGTCT |
| 8540 | WWOX | GTTTCTTGTTCCCATCCGTA |
| 8541 | WWOX | CCAAGATCACATGTGCACCA |
| 8542 | WWOX | CACATGTGATCTTGGCCTGC |
| 8543 | WWOX | ACACCGAGGAGAAGACTCAG |
| 8544 | XDH | TCAAATCGCAGCTGCTTCCG |
| 8545 | XDH | CGTGTTCCCCACGACCAGCT |
| 8546 | XDH | TCCAGGGGCGTGAACTCCTC |
| 8547 | XDH | GCATCACCTACCAGCAACTC |
| 8548 | XDH | TTACTGAGTGGTCTTTCTTC |
| 8549 | XDH | CTCTAGGATGGTGGATGCTG |
| 8550 | XIRP2 | GGAGCGGATGGCGAGGTACC |
| 8551 | XIRP2 | GGAGGCAATTCATAGCAGCC |
| 8552 | XIRP2 | TGCTTCTTGAAGTGCCAACC |
| 8553 | XIRP2 | TCAGAAATGTGCGCAGTGCC |
| 8554 | XIRP2 | ATCTGTTCTGATGTTGATAT |
| 8555 | XIRP2 | TTACATTAGCAGAGAAGCTG |
| 8556 | XPC | TTACTCTGCTCGAGATGATG |
| 8557 | XPC | CAAGTCGGGCTTTCCGAGCA |
| 8558 | XPC | TGCCCTTACCTTCCCGTCCA |
| 8559 | XPC | TCCTTTCCAATGTAGTCTGC |
| 8560 | XPC | TCAGATGGTGTGCCTTCTTG |
| 8561 | XPC | TGAGGTCATCCCCATCGCTG |
| 8562 | YEATS2 | ATAGTAGTTTGCTACAATGC |
| 8563 | YEATS2 | CAGAGACCAAGCCGAAATAC |
| 8564 | YEATS2 | AGCGACTGATTGAAGCAAGA |
| 8565 | YEATS2 | TATATACCCTTCCAGTATTT |
| 8566 | YEATS2 | TGAAATTGAAGTCATTGACC |
| 8567 | YEATS2 | TGCTCTTGAAATGAAGAATA |
| 8568 | YEATS4 | GCAACATTACCGTAAACTAT |
| 8569 | YEATS4 | GAATTTGGGCCTGACTCCGG |
| 8570 | YEATS4 | ACTGACCTTTACTCTCCCGC |
| 8571 | YEATS4 | ACATCTCGTCAGCTAACATT |
| 8572 | YEATS4 | ATCGTTAAACCAATAGTTTA |

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| 8573 | YEATS4 | ACAGCTTTAGCAAATGATAC |
| 8574 | YLPM1 | TCCCATACCGGATACATTCC |
| 8575 | YLPM1 | GGCTGACCATCTACCACCTC |
| 8576 | YLPM1 | GTCTCAAAAGTTGATCTTTC |
| 8577 | YLPM1 | AAAGTTGAACAGATACCTTA |
| 8578 | YLPM1 | CAGATTGTTGTTATAATGAG |
| 8579 | YLPM1 | ACATGTGTCTTTCCACTGCC |
| 8580 | YPEL1 | CACGTATTTCCACCCGAGCG |
| 8581 | YPEL1 | GACAGTTCGGCAGATACGCT |
| 8582 | YPEL1 | CCGCATGCAGCCCGGTGAGA |
| 8583 | YPEL1 | GTACTCACACGGAATTGAAG |
| 8584 | YPEL1 | AGTGGATACAGCTGTACGTT |
| 8585 | YPEL1 | GCGTCCCTGGCTCCCCTGAA |
| 8586 | YY1 | GATGTAGAGGGTGTCGCCCG |
| 8587 | YY1 | GTCGGGTCGTCGGTGACCAG |
| 8588 | YY1 | TCTCTCCAGTATGAACCAGT |
| 8589 | YY1 | CCTCTCAGATCCCAAACAAC |
| 8590 | YY1 | AAAACTAAAACGACACCAAC |
| 8591 | YY1 | TGAGGGCAAGCTATTGTTCT |
| 8592 | ZBP1 | GCATGGACGATTTACCGCCC |
| 8593 | ZBP1 | GCGGTAAATCGTCCATGCTT |
| 8594 | ZBP1 | TTGGGCGGGACTGATCCTGA |
| 8595 | ZBP1 | ATCAGTCCCGCCCAAGCACC |
| 8596 | ZBP1 | CTCGAAGCTCACCCCCAAGC |
| 8597 | ZBP1 | AGTCACTTTCCTCGAGACAT |
| 8598 | ZBTB1 | CGTCTTGACACACGTTCTTT |
| 8599 | ZBTB1 | GAACGTGTGTCAAGACGCTT |
| 8600 | ZBTB1 | CAGATCTCTCACTTCTCCAC |
| 8601 | ZBTB1 | CTGTGTGGCAGTGGTGAAAT |
| 8602 | ZBTB1 | CAGGAACATGCTCAACGATG |
| 8603 | ZBTB1 | CCACAATTAGGACATCGAAA |
| 8604 | ZBTB21 | ATGTCCGAGGGGTCCGACAG |
| 8605 | ZBTB21 | CGTTCCGGCACAGCCGCTCG |
| 8606 | ZBTB21 | TGAAGGTGCGCATGCACTCG |
| 8607 | ZBTB21 | TCTTGTGACCGACGAAGATG |
| 8608 | ZBTB21 | CCGGGAAGTATGGCTTACAT |
| 8609 | ZBTB21 | CCGATGTAAGCCATACTTCC |
| 8610 | ZBTB7A | TTGAATGTAGCGGGCGCCGG |
| 8611 | ZBTB7A | ATTCAACCGGCCCAAGCCGT |
| 8612 | ZBTB7A | GTAGTGGCCGTTCTGCGTGG |
| 8613 | ZBTB7A | GATGGGGCCGTCCACGCCGC |
| 8614 | ZBTB7A | AACGGCGTCCCCTCGCGCCG |
| 8615 | ZBTB7A | CGAGTTCCCCACGCACCGCT |
| 8616 | ZC3H13 | CTTAGACACAGTGCCGTAAC |
| 8617 | ZC3H13 | CTGCTATAACCTTTACCACG |
| 8618 | ZC3H13 | TGAAGCGTCAGAAGATACAG |
| 8619 | ZC3H13 | TTATGTTCATGAATTGTCAT |
| 8620 | ZC3H13 | GGAAGACATAAAAATCACTA |
| 8621 | ZC3H13 | GTGAAGAAGAAAATGTAGAA |

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|---|---|---|
| 8622 | ZCCHC12 | GGCTCCCCACCGATAGTGAT |
| 8623 | ZCCHC12 | TACCCTCGACGACTCCGATG |
| 8624 | ZCCHC12 | GAGAAGTCTCGGTCCTATAA |
| 8625 | ZCCHC12 | TACTCAGCTCACCGCCTAAA |
| 8626 | ZCCHC12 | TCAGCACTGCCGATCACTAT |
| 8627 | ZCCHC12 | GGACCTCCGACTCAGACTTA |
| 8628 | ZDHHC19 | CGGATACGCGATGGCCTTGT |
| 8629 | ZDHHC19 | ACGGGGCCTTCCGCCTGCAA |
| 8630 | ZDHHC19 | CCACACCACGTGCACCGTCA |
| 8631 | ZDHHC19 | GCAGGTGGGTTGTGCGCACC |
| 8632 | ZDHHC19 | TCACCTTGATGTAAGATGCC |
| 8633 | ZDHHC19 | TGGGCCTTTCCTGTTATCAC |
| 8634 | ZDHHC4 | GTAGAGCACCTCACGTTCTT |
| 8635 | ZDHHC4 | GACCCATCAGCACCGAAGCC |
| 8636 | ZDHHC4 | TCGAAAACCCATAGCTTGAA |
| 8637 | ZDHHC4 | TGGTTTATACTGAGTACACC |
| 8638 | ZDHHC4 | GTTTACACCTAGCAGCAGAT |
| 8639 | ZDHHC4 | TGTCTTCAGAGAGCCGTGCA |
| 8640 | ZEB1 | CAGAGACATGTGACGCAGTC |
| 8641 | ZEB1 | TGAAGACAAACTGCATATTG |
| 8642 | ZEB1 | ACAGATGCAGCTGACTGTGA |
| 8643 | ZEB1 | AAATTCAAATGCACTGAGTG |
| 8644 | ZEB1 | GCTTCATCTGCCTGAGCTTC |
| 8645 | ZEB1 | GAAGCTCAGGCAGATGAAGC |
| 8646 | ZER1 | TGCTGCGGGGGTCCGAAAAG |
| 8647 | ZER1 | CTCGTGTGGCTCGAAGTTAC |
| 8648 | ZER1 | CAGGGACCCAATCAATCATG |
| 8649 | ZER1 | GCTGCGGCCGCTTAACTCCC |
| 8650 | ZER1 | AGAGCAGCATCATACCTTTC |
| 8651 | ZER1 | GAGAGTTCTCAAAGAGCCCG |
| 8652 | ZFAT | GAGAGGAGTTCCGACTGATT |
| 8653 | ZFAT | ACTGCACACGAAGCAATTCC |
| 8654 | ZFAT | CACAACCTTACCAGGATGGT |
| 8655 | ZFAT | CTTCGCCCCAGAAAGCTGTC |
| 8656 | ZFAT | CCATGTGCTTCTCTGAAACG |
| 8657 | ZFAT | CATATCAAGACCAACCATCC |
| 8658 | ZFHX4 | ATCCAACCTTCCGCGGTTTA |
| 8659 | ZFHX4 | TTCGATGGTTGTGTTAGCGA |
| 8660 | ZFHX4 | GGTTACTCACCAAGCTCATT |
| 8661 | ZFHX4 | TCTGGTACAACATGTCCGTT |
| 8662 | ZFHX4 | AGCTATTAAGCCTACAGCAG |
| 8663 | ZFHX4 | AGTGAGAGAGACAATAGTGA |
| 8664 | ZFP1 | AATTGCCTCGCCTGCTCGTC |
| 8665 | ZFP1 | AGATCGCCTCTTTCCTCAAT |
| 8666 | ZFP1 | AACAACTGGACCCCTCTCAG |
| 8667 | ZFP1 | CCAGCATCACATCCATGTAT |
| 8668 | ZFP1 | GCAGAAAATGAACAAATCCC |
| 8669 | ZFP1 | GGAGAAACCTTTCGAGTGTC |
| 8670 | ZFP37 | TTTACTTGGACAACCTTGAC |

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|---|---|---|
| 8671 | ZFP37 | CTACTGCAACCAAGCCTCAA |
| 8672 | ZFP37 | GATGGCTGTGTCCGAGCCCG |
| 8673 | ZFP37 | AAGTGCGGAAACGACCAAAG |
| 8674 | ZFP37 | TACACTTATCAGATGAGCTA |
| 8675 | ZFP37 | CATGCTTAGTAGATGAGCTA |
| 8676 | ZNF136 | TTCATGTGTTCGAAATCTAC |
| 8677 | ZNF136 | AAAGATCACTACAAACACCG |
| 8678 | ZNF136 | ATCATGTGTCTTCGCATACT |
| 8679 | ZNF136 | ATGAGGAATCTGGCCTCTAT |
| 8680 | ZNF136 | ATTACCTTAGATTTCTCCCT |
| 8681 | ZNF136 | TATAGAGGCCAGATTCCTCA |
| 8682 | ZNF189 | AAAGGCCTTTAGCCGGAACT |
| 8683 | ZNF189 | TGCTTACTTACCTTCGACTC |
| 8684 | ZNF189 | ACCCATGAATGTGACGCTTG |
| 8685 | ZNF189 | GGCTTCCCCGAGCCCCCCGC |
| 8686 | ZNF189 | GATGTCATGATGGAGAATTA |
| 8687 | ZNF189 | GATTCTTACCCAGTGAGACC |
| 8688 | ZNF24 | TTTCTCTCCGTCGACGAAAA |
| 8689 | ZNF24 | GATTAATAAGCCCCGAATTC |
| 8690 | ZNF24 | ACACCCATATTGAGAGTGCC |
| 8691 | ZNF24 | CAAACTGCCTGAATCGCTGT |
| 8692 | ZNF24 | AACCCAAGTCTGTAGCTCTT |
| 8693 | ZNF24 | CCCAGGATGCCCACTTGAGC |
| 8694 | ZNF28 | CAGTATGAAGCGCCTTGTGA |
| 8695 | ZNF28 | CAACCCTTGCACGCCATCGT |
| 8696 | ZNF28 | CTGTAAAGAGTCCTCTGAGC |
| 8697 | ZNF28 | TCTTTACAGGGATGTGATGC |
| 8698 | ZNF28 | GTCAGGGATGGCTCTTCCTC |
| 8699 | ZNF28 | TTTCAGTCGCAAATCACACA |
| 8700 | ZNF350 | GTTTGCGTATATGTCGTGTC |
| 8701 | ZNF350 | TTGCAGTATGAAGTCGTTCA |
| 8702 | ZNF350 | ATTACAGGAATCCATAACAC |
| 8703 | ZNF350 | CAACTGTGGACAATTGAAGA |
| 8704 | ZNF350 | ACTCCTGGGCGCTGCTCAGA |
| 8705 | ZNF350 | CACCTGAACAGGCTCCACTG |
| 8706 | ZNF407 | TGAGTAATGGCACGTGGGCC |
| 8707 | ZNF407 | AAAAGCCGTTTAAATGTACC |
| 8708 | ZNF407 | GAGTTGGCACCCCAAAAGAA |
| 8709 | ZNF407 | CACTTAAATACTCATCTACT |
| 8710 | ZNF407 | CAAGCTGAGCTGTTGCAAAA |
| 8711 | ZNF407 | ACTTGTATTCCCTCATCCCA |
| 8712 | ZNF425 | GTTACACTCGGGACACGAAA |
| 8713 | ZNF425 | GCTCCCCGCGGTGTAGACAC |
| 8714 | ZNF425 | CCTTCTTACCGAAGCCGGCT |
| 8715 | ZNF425 | TTACGAGACCCTTGATTCCC |
| 8716 | ZNF425 | AATGCTATTAATCAGCGAAC |
| 8717 | ZNF425 | CCAAGCCAGATTTGATCACA |
| 8718 | ZNF470 | CATCCCTAGCTCATCATCGA |
| 8719 | ZNF470 | TCCCTAATGTTGAACATTCA |

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|---|---|---|
| 8720 | ZNF470 | TCAGAGAAGTTTGTACAAGA |
| 8721 | ZNF470 | CTACAGGAACCTAGTTTCAG |
| 8722 | ZNF470 | AAAGACCCTTGGGTGATAAA |
| 8723 | ZNF470 | TCTTCTCCAAATGAAGAGCC |
| 8724 | ZNF474 | CATGCCACACAAGACGCATT |
| 8725 | ZNF474 | GTTCATGAATGGCAATTGAC |
| 8726 | ZNF474 | GGCCTGCGGGCCGGGATCAC |
| 8727 | ZNF474 | TTCACCTAATGCGTCTTGTG |
| 8728 | ZNF474 | CTTTACCTCAGACCGCCTCC |
| 8729 | ZNF474 | GTGGAACCCCAGCCCGACCA |
| 8730 | ZNF483 | GTCTCAAAAAGCTCCCGACT |
| 8731 | ZNF483 | GCTATATAAGGAAGTGCTAC |
| 8732 | ZNF483 | CAATTCAACCCACTTTAGCT |
| 8733 | ZNF483 | ACTTACACAGGACTCAGTAT |
| 8734 | ZNF483 | ACAGTAGAATCTTGAGAGAC |
| 8735 | ZNF483 | CTAGGAATCTATAACATTGA |
| 8736 | ZNF569 | GTCCTCGTATATGTATAGTA |
| 8737 | ZNF569 | TCCACATTTACTACAGTCGA |
| 8738 | ZNF569 | TATAACAACTTAATCACAGT |
| 8739 | ZNF569 | AAGAAGTATTAAGGAGACAC |
| 8740 | ZNF569 | CTGCTCAGAGAAAACTGTAC |
| 8741 | ZNF569 | AGAAGAAGAACCATGGGTGA |
| 8742 | ZNF580 | GGACCCCATTGGCGTCGATG |
| 8743 | ZNF580 | CACCTCCTCATCGACGCCAA |
| 8744 | ZNF580 | CTCCTGGGGGCGCCTCGCGC |
| 8745 | ZNF580 | GAGCCACCGCGTGTCGCACT |
| 8746 | ZNF580 | GCGTGGCGCGATGCCGCGAC |
| 8747 | ZNF580 | GCAAAGACACGGGCGCACTC |
| 8748 | ZNF583 | GTTGCGCCAAGTTTGCACTC |
| 8749 | ZNF583 | AAGTGATGAACTATTGCTAA |
| 8750 | ZNF583 | GCCAGATGTGATCTCATTAT |
| 8751 | ZNF583 | CTACAGGAGCTTGGTATCAT |
| 8752 | ZNF583 | GGAACAAGAGGCCCATGCCC |
| 8753 | ZNF583 | GGCTGTAAATTTCTCTCAAG |
| 8754 | ZNF595 | GCCCTAAACCAAGCCCTCGC |
| 8755 | ZNF595 | ACAAATTGTCCAATACCCTC |
| 8756 | ZNF595 | CCAAGACCTTTCACCAGTGC |
| 8757 | ZNF595 | ACCCTACAATGTGAAAAATG |
| 8758 | ZNF595 | TGTGATCTCTAACCCAGACC |
| 8759 | ZNF595 | CTCATGTATCTTCAAATTGC |
| 8760 | ZNF615 | GAGCCGACACTTCTTGATGA |
| 8761 | ZNF615 | GTTCGCTGATGTCTGATGAG |
| 8762 | ZNF615 | ATTACAGGAATCCCTAACAC |
| 8763 | ZNF615 | ATCTACTCTCGAATCTGTTC |
| 8764 | ZNF615 | TTAGATTCAGGAGGTGCATC |
| 8765 | ZNF615 | CAGCCACATCCTCCAGTGTT |
| 8766 | ZNF619 | CCTAATGGAGACCCAACTGC |
| 8767 | ZNF619 | ACCAGATCTGATATTCCAGC |
| 8768 | ZNF619 | CCAGCCTGCACCCTACGCAG |

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|---|---|---|
| 8769 | ZNF619 | TTCTTGTGCAGGGCTTGGGC |
| 8770 | ZNF619 | CAGCCATGCTCCAGACAGTG |
| 8771 | ZNF619 | GGGACTCACACATAGGCAAT |
| 8772 | ZNF670 | CACTAGTAATGGGCCTTATA |
| 8773 | ZNF670 | AGCCCACTCCTCCTGAGTAA |
| 8774 | ZNF670 | TCATACACTGGACCCTTATA |
| 8775 | ZNF670 | CAAGATGACTTCAAAAATCC |
| 8776 | ZNF670 | ATGTGATGCAAGAAATCTTC |
| 8777 | ZNF670 | TGAAGTCATCTTGGATATTC |
| 8778 | ZNF677 | ACCAGTGTTCGAACCTCACT |
| 8779 | ZNF677 | AAGCAAGGGATTATCACCAA |
| 8780 | ZNF677 | GAACCTGCTTTCTCTCGATG |
| 8781 | ZNF677 | TATCCTCATCGAGAGAAAGC |
| 8782 | ZNF677 | GGAGGGAATGGCTCTTTCTC |
| 8783 | ZNF677 | TGCCTAAGTTTGACAGCCTG |
| 8784 | ZNF682 | GCCAGAACTGATTAGCCGTC |
| 8785 | ZNF682 | TTCACATTTATAGCGTTTGA |
| 8786 | ZNF682 | GTAAAAATTCTTACGTAGTA |
| 8787 | ZNF682 | GAGACCATAGCCAAACCCCC |
| 8788 | ZNF682 | TATTCTCACCCAGAGAGACC |
| 8789 | ZNF682 | GCTAGAGAACTACAGAAACC |
| 8790 | ZNF683 | CCATAAGATCTAGTGCCCCC |
| 8791 | ZNF683 | CACATATGTTGCACTCGTAC |
| 8792 | ZNF683 | CTGTACGAGTGCAACATATG |
| 8793 | ZNF683 | CCAGGGGGCACTAGATCTTA |
| 8794 | ZNF683 | TGCACTGCTGGCCTGCCTAC |
| 8795 | ZNF683 | AGGATCTCACCGAGCACTTG |
| 8796 | ZNF684 | TATGCATAAAGCCCAACTCG |
| 8797 | ZNF684 | TCACCTGGAGAGCTCTCGTG |
| 8798 | ZNF684 | TACCCACTTGTTGATGAACC |
| 8799 | ZNF684 | AATCCACACGAGAGCTCTCC |
| 8800 | ZNF684 | GTGCTGAGAGAACCCTGTAT |
| 8801 | ZNF684 | GGCTGTGGATTTCACTGCAG |
| 8802 | ZNF707 | ACTCGTAGAACCTCTTCGTC |
| 8803 | ZNF707 | TGGTTCCCGTGTGCACCGTC |
| 8804 | ZNF707 | ACTGTTCCAGGCGAGAGACG |
| 8805 | ZNF707 | CTCTCCCGGTCTTCAACCCA |
| 8806 | ZNF707 | ACGTGGCCATCTACTTCTCA |
| 8807 | ZNF707 | CTCCTCCCTTGAGAAGTAGA |
| 8808 | ZNF778 | CACTTCGGCAGGATAGATCT |
| 8809 | ZNF778 | GGGTTCTTATGTGCACGATA |
| 8810 | ZNF778 | CGCGGTGACCTTTGACGACG |
| 8811 | ZNF778 | CAGTAGATAAAACCCACCGC |
| 8812 | ZNF778 | GATCTATCCTGCCGAAGTGC |
| 8813 | ZNF778 | GTCCACAGCCACGTCGTCAA |
| 8814 | ZNF821 | GTTGATTGCTCACGTGTACC |
| 8815 | ZNF821 | GCTAGAAGAGCAAGCCCGCC |
| 8816 | ZNF821 | AGTCCTGATCTCTTAGTTGT |
| 8817 | ZNF821 | GAACGAAGTGGTAGAGCACG |

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| 8818 | ZNF821 | ATCAGGGAAACATGTCCCGT |
| 8819 | ZNF821 | ACCACTTCGTTCCCACCAAC |
| 8820 | ZNF827 | ACCGAGGCAAAGTCGTGCTT |
| 8821 | ZNF827 | GATTGTCCTTGCGAGCACAC |
| 8822 | ZNF827 | CCCTAAGCACGACTTTGCCT |
| 8823 | ZNF827 | TGATATTCTTCCGTGCAGCA |
| 8824 | ZNF827 | CCTTTCCAGTGTCCAATATG |
| 8825 | ZNF827 | CCCAGTGACTCCGTGCTGCA |
| 8826 | ZNF829 | TTCAGGGGCCGGTGATGTTC |
| 8827 | ZNF829 | AATTCATCTGATCAGCGTCC |
| 8828 | ZNF829 | TACCCACCACACATGAGGAA |
| 8829 | ZNF829 | ACTTCTACAAGCAGTATCCA |
| 8830 | ZNF829 | TGATCTCCATTCCTCATGTG |
| 8831 | ZNF829 | CTCCAGGTGTCACCCAGAAG |
| 8832 | ZNF836 | AATCAACACTAGCACGTCAT |
| 8833 | ZNF836 | CTTTAGAGTGCGTTCAATTC |
| 8834 | ZNF836 | GTCAGGGATGGCTCTTACAC |
| 8835 | ZNF836 | CAGTACAAAGCTTTCTGCAC |
| 8836 | ZNF836 | TTCAGGGACCTTTGACATTC |
| 8837 | ZNF836 | ATTCCACTTCGAACCTTGCA |
| 8838 | ZNHIT1 | CGAGCTGAGGGAGTCCCGCG |
| 8839 | ZNHIT1 | GCCTCAGTTTGATGACGATG |
| 8840 | ZNHIT1 | TCGCTTCCGAAAAAACTTTC |
| 8841 | ZNHIT1 | CCGCGATGGGGGTCCCGCAC |
| 8842 | ZNHIT1 | CCTGTGCGGGACCCCCATCG |
| 8843 | ZNHIT1 | CTGTCTGCAGGTGTCTGAAG |
| 8844 | ZNRF3 | TCCCCGCTGTACTGCTCGCT |
| 8845 | ZNRF3 | GCTCTGAAGACCCGCTCAAG |
| 8846 | ZNRF3 | TTTCCTGGCTTTCTTCGTCG |
| 8847 | ZNRF3 | AGGCCAAGCGAGCAGTACAG |
| 8848 | ZNRF3 | ACCCACTGAATACTTTGACA |
| 8849 | ZNRF3 | GCACCCTTCACATACACCAC |
| 8850 | ZSCAN2 | TCCGCTGGTGCACTACGAGC |
| 8851 | ZSCAN2 | ATCCAGCCTTAACACGCATC |
| 8852 | ZSCAN2 | GAAACAGCTTCCTGCGTACA |
| 8853 | ZSCAN2 | TCCGAGAGCTCTGCCGGCGC |
| 8854 | ZSCAN2 | CACAGGGCAGCCATGTACGC |
| 8855 | ZSCAN2 | AGGCGGCCGAGTGCACCCTG |
| 8856 | ZWINT | GGAAATCCGCTACCTGAAGC |
| 8857 | ZWINT | TGCTAAGGGTCTCGACCCCT |
| 8858 | ZWINT | GGAGTTGTGTCCGTTTCCTC |
| 8859 | ZWINT | GGCCTCTACGTGCTCCCTGT |
| 8860 | ZWINT | ATACCACCACAAACTCAACC |
| 8861 | ZWINT | CTACCTGTTGTAGCTGCCAC |
| 8862 | ZYG11B | AGGTGGCTGATCGACTGCTT |
| 8863 | ZYG11B | CACTGAAGCGTTACAGTGAA |
| 8864 | ZYG11B | ACACAATGTTCCATCTTGTC |
| 8865 | ZYG11B | AGGCTGCATGCCCGAGGACC |
| 8866 | ZYG11B | TTCTGCAATCTGAGTTTCAT |

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| 8867 | ZYG11B | CTCCCTCACCATGGCTGCGC |
| 8868 | ABRAXAS2 | TTTCCCATAGGTATAATCAG |
| 8869 | ABRAXAS2 | TGGAGTGATGAAAGACATCA |
| 8870 | ABRAXAS2 | TAAGAAGACAAATCACTCAG |
| 8871 | ABRAXAS2 | GATTCTTAAAGATCGGAGAA |
| 8872 | ABRAXAS2 | AGCTGAAGAGAAGAAAGACG |
| 8873 | ABRAXAS2 | AACAGCAACGCGGACCACGT |
| 8874 | ACTN1-AS1 | TTATTAGAGATCCCGCACGA |
| 8875 | ACTN1-AS1 | CTCTGGGGACCGCTCCACAG |
| 8876 | ACTN1-AS1 | CGACCAAAACTACCTTCGCG |
| 8877 | ACTN1-AS1 | CACGCGCGCTCCAAACCCCG |
| 8878 | ACTN1-AS1 | ATGTGCACAGCCATCCTGTG |
| 8879 | ACTN1-AS1 | AGATTTACCTAGATCACTCG |
| 8880 | ADAM5 | TATGATGAAATTAATACCAG |
| 8881 | ADAM5 | GTGTGTCTACATACCTACCC |
| 8882 | ADAM5 | CTCATATGGAATTGAACCGA |
| 8883 | ADAM5 | CCTTACTGCCAACCAAAGCA |
| 8884 | ADAM5 | ATATGCATTTCAATATATCG |
| 8885 | ADAM5 | AAATGCCAACCTACACACAC |
| 8886 | ADAMTS9-AS2 | TGAGTTGGTATATTACAGGT |
| 8887 | ADAMTS9-AS2 | TATACTCAAACAGATCACAT |
| 8888 | ADAMTS9-AS2 | GTGAATTGGCCAAAAATCTG |
| 8889 | ADAMTS9-AS2 | GCAGGTCCAGGTGTTACTTG |
| 8890 | ADAMTS9-AS2 | CTGATATGTATTGCAACCAG |
| 8891 | ADAMTS9-AS2 | AGGCATAACCACCCCCAGAG |
| 8892 | ADGRB2 | TGAGCAAGACCTCGACAAAG |
| 8893 | ADGRB2 | CCAGGCTCATCTGCAGACCT |
| 8894 | ADGRB2 | CAGCCACTGATAGCAAGTGG |
| 8895 | ADGRB2 | CACTGCACAGCCGATCACCA |
| 8896 | ADGRB2 | ATCATCAGCCGAGGGCACGT |
| 8897 | ADGRB2 | AGCACCGATCACAAAGTAGG |
| 8898 | ADGRL3 | TTACAACACTGACCAAAGCA |
| 8899 | ADGRL3 | TGTGTTATATGATTGACCCA |
| 8900 | ADGRL3 | CACAGTATGAAGCAACATGG |
| 8901 | ADGRL3 | CAAAGTTGTGGTCCGAAGGG |
| 8902 | ADGRL3 | AGGCATCTGGCAGATAACAT |
| 8903 | ADGRL3 | ACAGGTTATTGGTCAACACA |
| 8904 | ADGRL4 | TGAATTTGTATCAAACTCTG |
| 8905 | ADGRL4 | TGAAGCCTGCTATTGCAACA |
| 8906 | ADGRL4 | CTTACAAGGATCACTCAACT |
| 8907 | ADGRL4 | CTGCATATGATTCAAATGGT |
| 8908 | ADGRL4 | ATTTACATTAAGTCATCGAA |
| 8909 | ADGRL4 | AATGATGGAACCGTCTGTAT |
| 8910 | ADGRV1 | TTATTGGTCATCCGTGCACA |
| 8911 | ADGRV1 | TCACCCGTATCACCACAGAA |
| 8912 | ADGRV1 | TATGGTCCACTCAAGTCGGA |
| 8913 | ADGRV1 | ATATCCTTGAGCATCAAGCA |
| 8914 | ADGRV1 | AGGATAAGTATCGTTCACCT |
| 8915 | ADGRV1 | AAGATTGGATGGGATACCAG |

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|---|---|---|
| 8916 | AFAP1-AS1 | TCTGAGGAATGGTTATCCTG |
| 8917 | AFAP1-AS1 | TAAAAACACTGGACTCAGAG |
| 8918 | AFAP1-AS1 | GGGATGTATACGCTTCCTTG |
| 8919 | AFAP1-AS1 | CCTGGTTCAGAAGAGACACG |
| 8920 | AFAP1-AS1 | CCAGAATCTACTGCGTCCTG |
| 8921 | AFAP1-AS1 | CAGAAACGCCGTTACTCCCG |
| 8922 | AGAP2-AS1 | GTCAAGGTAAGAGTTTGAGG |
| 8923 | AGAP2-AS1 | GGTCTGCGGAAGGAGCGTAG |
| 8924 | AGAP2-AS1 | GACCCAGAGCAATCCGAGTG |
| 8925 | AGAP2-AS1 | CACGGCCGAAGTCGTGTGAG |
| 8926 | AGAP2-AS1 | AGGAAGCCCGAGCACATGCA |
| 8927 | AGAP2-AS1 | AAGGGACAGAGTTCAAGCAG |
| 8928 | AGGF1P2 | ATTACAGACTCTCATACCGA |
| 8929 | AGGF1P2 | ATGATTCATCTTTCTTGTCA |
| 8930 | AGGF1P2 | AGGAAGATGAGGAAAAAGTG |
| 8931 | AGGF1P2 | ACTGGGACAAAGCTCAGGAG |
| 8932 | AGGF1P2 | ACTCTTCAAATCCCTGAAGT |
| 8933 | AGGF1P2 | AATCCTGCATGTGTTTGCCA |
| 8934 | AKR1D1P1 | TGTTAAAACTGGATACTCCG |
| 8935 | AKR1D1P1 | TGGTGATTCGATGATCAATG |
| 8936 | AKR1D1P1 | GGACCACTAGGAATCCAACC |
| 8937 | AKR1D1P1 | GCCTAAATTGACCCCTAAGG |
| 8938 | AKR1D1P1 | GAGCCTAGAGAGGATGCTCA |
| 8939 | AKR1D1P1 | CCCTAAGGTCCTCCACACGT |
| 8940 | ALOX12P2 | TGTGCTGAGACAATTCCAGG |
| 8941 | ALOX12P2 | GGGAAGGCACCAAACCATTG |
| 8942 | ALOX12P2 | GAGGAGGACGGAATACTCAA |
| 8943 | ALOX12P2 | CTCTCTGAAGAATGTCCACG |
| 8944 | ALOX12P2 | CACCTGGAGATCTTAAACCG |
| 8945 | ALOX12P2 | AGGCAGGAATAGGCTACCTG |
| 8946 | ANAPC1P1 | GTGCAGCATGCTGAACATAG |
| 8947 | ANAPC1P1 | GGACAACGAAGATTGCAGCC |
| 8948 | ANAPC1P1 | GCTAGTGGCCACATTCCGTG |
| 8949 | ANAPC1P1 | CTTTGTGGGATCCCTTCAGG |
| 8950 | ANAPC1P1 | CACAGGAAATTTGCCCACAT |
| 8951 | ANAPC1P1 | ATTGTAAATGGATACTAACA |
| 8952 | ANKRD31 | TACATCACCAGAAAGCACCC |
| 8953 | ANKRD31 | GCACTTCATGAAGCTAGTGT |
| 8954 | ANKRD31 | GAATTAACTAATAACATCAG |
| 8955 | ANKRD31 | CATTGACCCACTAGACATAG |
| 8956 | ANKRD31 | AGGTTGGACACCACTTCATG |
| 8957 | ANKRD31 | AGATTGTACACAAATAGCAG |
| 8958 | ANP32BP3 | TGACAAAGATGAAGTCAGCG |
| 8959 | ANP32BP3 | TACCAAGAGGGACTAAATGG |
| 8960 | ANP32BP3 | GTGAGACTCTTGCTGTAGCG |
| 8961 | ANP32BP3 | CTTGGATACCTATGACCCAG |
| 8962 | ANP32BP3 | AAGGACTAGGAGAATGAGGA |
| 8963 | ANP32BP3 | AACCTACATTTATTAAACGG |
| 8964 | ASB16-AS1 | GTGGAGACAGAGTAGACTGT |

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| 8965 | ASB16-AS1 | GTCCTGAAGGAATAGGCCTG |
| 8966 | ASB16-AS1 | GTAACGAATCCAATCAGCCG |
| 8967 | ASB16-AS1 | CAATTCTGTTGTCTGTAGCG |
| 8968 | ASB16-AS1 | CAATCCTAGCCTAATCTGGG |
| 8969 | ASB16-AS1 | AAAATGTTAGGAGATAAGGC |
| 8970 | ASNSP1 | TTGTAATAGAGCACGTGTGG |
| 8971 | ASNSP1 | TGGGCATTTATATAATAAGG |
| 8972 | ASNSP1 | TCAGTGGCATCGATCCACTT |
| 8973 | ASNSP1 | GTGCTATGTAGATTGCACAC |
| 8974 | ASNSP1 | GGGCCAAATGCCACACGTGG |
| 8975 | ASNSP1 | GGAACAATGAAAGTCAACTC |
| 8976 | ATP5F1A | TTATTGGTGACCGACAGACT |
| 8977 | ATP5F1A | GGCCGTAGCCGACACCACAA |
| 8978 | ATP5F1A | CATTCCTCAGCCCATGTACG |
| 8979 | ATP5F1A | AGGATAGGCCTCACGACCAG |
| 8980 | ATP5F1A | ACCAACTGGAACGTCCACAA |
| 8981 | ATP5F1A | AAATTCGAGGAATGATACCG |
| 8982 | ATP6V0E1P2 | TAGAATAAGACATTTAAATG |
| 8983 | ATP6V0E1P2 | GGACCCTTAGGGATAAACCA |
| 8984 | ATP6V0E1P2 | CCATGAGGCCATAATATGCA |
| 8985 | ATP6V0E1P2 | AATTTGGGAAATGAAGCGGT |
| 8986 | ATP6V0E1P2 | AATGGGCAAGTCAAGAAAGG |
| 8987 | ATP6V0E1P2 | AACATGCTCATCACAGCGAA |
| 8988 | ATXN2-AS | TGTGTCCCCTGAATCTGGCA |
| 8989 | ATXN2-AS | TGGAGTGGAGCAACCCTCCG |
| 8990 | ATXN2-AS | TCAGCATCTTCACTTCTGCG |
| 8991 | ATXN2-AS | GGGGACGGCAGGAAAACGGC |
| 8992 | ATXN2-AS | AGGAAAAAGAAGTTCAAGTG |
| 8993 | ATXN2-AS | AAGACACATTCTCCGCCCCA |
| 8994 | B4GAT1 | GGCGATTACCGCGTCTACAG |
| 8995 | B4GAT1 | GCTGGATCAGAGCAACCAGT |
| 8996 | B4GAT1 | GACCTGGTCCACGGACCGTG |
| 8997 | B4GAT1 | CTATGCCCTGGTGATCGATG |
| 8998 | B4GAT1 | CGTGTGCCCCTCGCGTTACG |
| 8999 | B4GAT1 | CCCAGCGCATAATTAATCCC |
| 9000 | C1GALT1P2 | GTAAAACAGGGCTGTATGAG |
| 9001 | C1GALT1P2 | GATAATGGACAGAATCATCT |
| 9002 | C1GALT1P2 | CTGCCGGAGACTGATCTGGG |
| 9003 | C1GALT1P2 | CAGAAATACACTTTCCGAGA |
| 9004 | C1GALT1P2 | AGAGGGCGACGACATGGGAC |
| 9005 | C1GALT1P2 | AGAGCACTGGAATCCCAGTG |
| 9006 | C1orf143 | TTAGAAAACTGTACCCCAGA |
| 9007 | C1orf143 | TGTGGAAAACATCTATCGGC |
| 9008 | C1orf143 | GGAACCTTTATCAGATAGCA |
| 9009 | C1orf143 | GAAGGAAGAGCAATTGGTTG |
| 9010 | C1orf143 | AGCTTCCCATATAGCCCTGG |
| 9011 | C1orf143 | AAATAGTGTAATCTACCTGA |
| 9012 | C1orf220 | GGGCCACGAAGGATGGACGA |
| 9013 | C1orf220 | GCTTCCAAAATGGTGCCTTG |

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|---|---|---|
| 9014 | C1orf220 | GAACTCTACACTAAATGTGG |
| 9015 | C1orf220 | CTTGTTTCTTGGCACCACAT |
| 9016 | C1orf220 | CTCTGCAAATAGCTGCACCT |
| 9017 | C1orf220 | AGGACTAAGATACCATTCCA |
| 9018 | C1QBPP2 | TTAGTGCGGAAAGTTGCTGG |
| 9019 | C1QBPP2 | TGGATTTCCTTGCGGACCAA |
| 9020 | C1QBPP2 | GGGGAGTTGATATCAATTCA |
| 9021 | C1QBPP2 | GAGAGGACTGCGAACATGTG |
| 9022 | C1QBPP2 | CTTCCATTCAAACTCGCTGG |
| 9023 | C1QBPP2 | ATAATGACAGTCCAGCACAA |
| 9024 | C20orf203 | GTGGACTCGCTGAGCCTTTG |
| 9025 | C20orf203 | GAGTCCAGCCAAGACTGATG |
| 9026 | C20orf203 | CTGTGATCCAGCATGTTGGG |
| 9027 | C20orf203 | CCCCACCGCCAAGGTCCCAG |
| 9028 | C20orf203 | CAAGGTGGGTCGGAGAGATA |
| 9029 | C20orf203 | ACCCAGGCCCTTATCAGGAA |
| 9030 | C3P1 | GTCAAGTTGGTACCTCGATG |
| 9031 | C3P1 | GAACATGGTACCCGACACGG |
| 9032 | C3P1 | CTCTGCCAAAGAGTAAATCG |
| 9033 | C3P1 | CAGGTTCCAGAACAATTGAG |
| 9034 | C3P1 | ATGTGAATGACAGATGCATA |
| 9035 | C3P1 | ACAGCAATGCCTACCAACAG |
| 9036 | C8orf49 | TGTCTTCCGTCCTACCGCTG |
| 9037 | C8orf49 | TGCTCGTGATCGTAAGCTCC |
| 9038 | C8orf49 | CTTCTCTGGCTAAAACCCGG |
| 9039 | C8orf49 | CACTCGTGGACCAAGTGCAT |
| 9040 | C8orf49 | AATACTATGGACAATACTAG |
| 9041 | C8orf49 | AAGTATGCGTCATGCCTGCG |
| 9042 | CASC20 | TATAATTTACAATATGATGA |
| 9043 | CASC20 | ATTTCCAGACACAAATTGTG |
| 9044 | CASC20 | ATAGGCATAGATACTAAGAT |
| 9045 | CASC20 | AGGGTTACCTGATTGAGGAG |
| 9046 | CASC20 | AGGATTGATACGTAAAAACG |
| 9047 | CASC20 | AGGAAATGCATGGTCTCACA |
| 9048 | CBX3P4 | GAGGTGGAAAGATTCAGGTG |
| 9049 | CBX3P4 | GAAAATGGATGTTTCTCATG |
| 9050 | CBX3P4 | ATTGGTGCCACAGATGGCAG |
| 9051 | CBX3P4 | AGAAAAGCTTCAATTAACTC |
| 9052 | CBX3P4 | AAAGCTGGTAAAGAAAAAGA |
| 9053 | CBX3P4 | AAACCAAGAGGATTTGCCAC |
| 9054 | CCDC197 | GGGACAACACATACTTAGCC |
| 9055 | CCDC197 | GGACCACAGGGCTCTCATGT |
| 9056 | CCDC197 | GGACACGCAGAAGCGCCTCG |
| 9057 | CCDC197 | GGAAGCTGTGTACATACCCT |
| 9058 | CCDC197 | CTTCCCGTAGTGCTTCACCG |
| 9059 | CCDC197 | CCCAAGCAATCCTGGTGACA |
| 9060 | CCDC198 | GATTGAATGCAAAGTCCACA |
| 9061 | CCDC198 | GATGTCAAAATACATGTCTC |
| 9062 | CCDC198 | CTTCCTGAAGTAATTACTCG |

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|---|---|---|
| 9063 | CCDC198 | CAGGACAATGCACAAAGCAA |
| 9064 | CCDC198 | AATTAATAAGCAAAGTCCAA |
| 9065 | CCDC198 | AATGATCCGTAAAAGACAAG |
| 9066 | CCDC57 | TTCCATCCAGTGAGATCCAG |
| 9067 | CCDC57 | TGGAGTTTGAATCGAAAATG |
| 9068 | CCDC57 | GGTGAGCGAGCTCAAGATAG |
| 9069 | CCDC57 | CTGGGCTGAGACTCAGCATG |
| 9070 | CCDC57 | CCCTTTCAATGTCATCACAG |
| 9071 | CCDC57 | ATCAACTGTAAAATCTGCCT |
| 9072 | CCDC9B | TGGACAAGGCCAAGTCCACG |
| 9073 | CCDC9B | GCAAGCCAGCAGACCCTCGG |
| 9074 | CCDC9B | CTTACAATCCGTTTGCCCTG |
| 9075 | CCDC9B | CCCAGGGTGAGGCTTACACC |
| 9076 | CCDC9B | CAGCTCAGATTCTGCACGGA |
| 9077 | CCDC9B | AGGAGATCCAGGAGGACCGT |
| 9078 | CCNYL2 | TTTGGAGTGATATGGCTGTG |
| 9079 | CCNYL2 | TGACATGGGAACATTGCTTG |
| 9080 | CCNYL2 | TATATTATCATATCAAGCAA |
| 9081 | CCNYL2 | TAGCAGTTTAGCATGTTTGG |
| 9082 | CCNYL2 | CAGGGCTTGGAACACGTCCA |
| 9083 | CCNYL2 | ATTAAGCAAATATCTGTACG |
| 9084 | CCRL1P1 | TGTGCTACTTTATCACGGCA |
| 9085 | CCRL1P1 | GTGCAATGCTTTCTGTGACT |
| 9086 | CCRL1P1 | GGGGGTGTGCTACTTTATCA |
| 9087 | CCRL1P1 | GCCATGGCTCCAATCTCAGA |
| 9088 | CCRL1P1 | CAATGACGAAAGCTATTGTG |
| 9089 | CCRL1P1 | ACTAATGTCCCCAGCCAATC |
| 9090 | CDC37P1 | GGGAGTTAGCTGGGTCGCAG |
| 9091 | CDC37P1 | GGAGGTGGAGTGGCTACACG |
| 9092 | CDC37P1 | GCGGAAGAGGTTAGCCCGGT |
| 9093 | CDC37P1 | CTGGGAGTACAAGTGCAAGA |
| 9094 | CDC37P1 | ATGTTGGACTACAGCGTGTG |
| 9095 | CDC37P1 | AAAGAGCATGACCTGGAACG |
| 9096 | CDC37P2 | GGGTCGCAGAGGCAAAATGT |
| 9097 | CDC37P2 | GCTACACGAGGAGCTGAGCT |
| 9098 | CDC37P2 | CTCTTCATCATCGCTCAGTG |
| 9099 | CDC37P2 | CCAAGAAAAAGAGCATGACC |
| 9100 | CDC37P2 | AGCGGAAGAGGTTAGCCCGG |
| 9101 | CDC37P2 | AAGGAGCTGGAGGTGTCAGA |
| 9102 | CES5AP1 | TGGTTGTGATCGTCCAGTAC |
| 9103 | CES5AP1 | GGGAGTTTGGGGGATCTCGG |
| 9104 | CES5AP1 | GGAGTCAATAACCCCGAGTG |
| 9105 | CES5AP1 | GGAAGTATTCACCAGCCACA |
| 9106 | CES5AP1 | ATTCTGTCTCCCATGGCCGA |
| 9107 | CES5AP1 | ATCACAGCTCAGTATCATAG |
| 9108 | CFAP300 | TCTGAAAGTAACTTCAAATT |
| 9109 | CFAP300 | GGAACTCTTCTCTATCTGGT |
| 9110 | CFAP300 | GACATTGAAAGCTGTGTGCA |
| 9111 | CFAP300 | GAAGATATTGTACGAGACAG |

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|---|---|---|
| 9112 | CFAP300 | CCTCGGTTCCTCACCACTGG |
| 9113 | CFAP300 | ATCCTTCCGATAGGACTGAA |
| 9114 | CFAP54 | TATGCTAAAATGCATGAATG |
| 9115 | CFAP54 | GAGTGACAGGAGCGGGACCA |
| 9116 | CFAP54 | CTGTAGTCTTTGAAACCCGG |
| 9117 | CFAP54 | ATCATCCAAAGGATGCTCAA |
| 9118 | CFAP54 | AATGCAAATTAGGAATTCAG |
| 9119 | CFAP54 | AACAACGGAAAGCTTGTCGG |
| 9120 | CFAP73 | GGCAGCCCTGAAACAGCGTT |
| 9121 | CFAP73 | GCAGCGCCTCCACCTCCCGA |
| 9122 | CFAP73 | CCTGCAAAAACTTGTCAAAG |
| 9123 | CFAP73 | CCCCCGACTCTAGTTCCAAG |
| 9124 | CFAP73 | AGCTGGAGGCGGCGCGAGCG |
| 9125 | CFAP73 | AGCTACGGCGGGAACACGCG |
| 9126 | CHKB-DT | TGTGATTCGTGATCCCATGT |
| 9127 | CHKB-DT | TCCTTGTCGGAGCGCCCCAG |
| 9128 | CHKB-DT | CTTGATCCTGATAAACGGTG |
| 9129 | CHKB-DT | AGGTAGGAACGCTTCCACGA |
| 9130 | CHKB-DT | AGGCCAATCAGTTGGCGGAG |
| 9131 | CHKB-DT | AGCGTACGGGAAGACCGGAG |
| 9132 | CIPC | TGCTGAGATCACTTCAAAGG |
| 9133 | CIPC | GTGAGAAAAAGTCCGACTCC |
| 9134 | CIPC | GGCTCACTGGAAGACAAGCT |
| 9135 | CIPC | GCCGGTATCCAGCAGTCACG |
| 9136 | CIPC | ACCCAGCGCCAAACTTGCCG |
| 9137 | CIPC | ACATTCTTCATGACGACCAT |
| 9138 | CLLU1 | TGTTACCTAACTGTGATCCT |
| 9139 | CLLU1 | TGGGCCTTCAGACTTAAACC |
| 9140 | CLLU1 | TCAGGGAAGAAATGGATCGT |
| 9141 | CLLU1 | GTGGGCCTGTCATGCACACA |
| 9142 | CLLU1 | AACAGGCATAAACTTCCGTT |
| 9143 | CLLU1 | AAATATATTCAGTCATAGTG |
| 9144 | CLTRN | TACATTGCAAAGTAGGACAT |
| 9145 | CLTRN | TAATCCAGATGGGCACAGAT |
| 9146 | CLTRN | CTTTCTAAATGACCAAACTC |
| 9147 | CLTRN | CTTAGTATCAGAACAGCTCT |
| 9148 | CLTRN | CATGCTGAACTCTGTCAACC |
| 9149 | CLTRN | AAGCTACCATCGCTTTGAAG |
| 9150 | COL26A1 | TGAGCGACTGACCACACTGG |
| 9151 | COL26A1 | TCGGTCACCTTTAGACCCGG |
| 9152 | COL26A1 | GGTCGGCGGAGTGCTCTCGG |
| 9153 | COL26A1 | CGTGCGGTAGGACACTCTGT |
| 9154 | COL26A1 | CCATCACACAGTGACACGGA |
| 9155 | COL26A1 | AGGGAGTAGAGGGCGCCCTG |
| 9156 | COX6CP2 | TGAAGTTTACACACCTATCA |
| 9157 | COX6CP2 | GTAGAAAGCTGCAACCACCA |
| 9158 | COX6CP2 | CGTCCATTTCTCCAACAGCT |
| 9159 | COX6CP2 | ATCACAGACGCTTAACCAGA |
| 9160 | COX6CP2 | AGCTTTCTACAAGATTGCTA |

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| 9161 | COX6CP2 | AGCTAAGAAATAGTTTCTCT |
| 9162 | CPEB1-AS1 | TGTCAACCATAAGAAAATGA |
| 9163 | CPEB1-AS1 | GGCAGACAGTGACTCGGCAA |
| 9164 | CPEB1-AS1 | GCGCGGACCGTTAGCTACTG |
| 9165 | CPEB1-AS1 | GAGAGCAAAGACTCAAACCA |
| 9166 | CPEB1-AS1 | ATGATGCGACCTGATACCGC |
| 9167 | CPEB1-AS1 | AGGGGCTACAGTTCCGACCA |
| 9168 | CRYBG2 | GTGTCACTCGGTATTCCTCG |
| 9169 | CRYBG2 | GCCTGTCCGGACAGAGACCA |
| 9170 | CRYBG2 | GCCTCGAACTACCCTTATGG |
| 9171 | CRYBG2 | CTTGTCTCTGATCCCACCGA |
| 9172 | CRYBG2 | CTTGTCCCCCAAGTCAACTG |
| 9173 | CRYBG2 | CTTCACAACCTCTTTCCAGG |
| 9174 | CTBP2P2 | TGTTTGCTCACTATACCAGG |
| 9175 | CTBP2P2 | GCTGTAGGTCACATGATGGG |
| 9176 | CTBP2P2 | GATTGAACAGAATTTGTGAA |
| 9177 | CTBP2P2 | ATCCGCGAGGTCAACTCGGG |
| 9178 | CTBP2P2 | ACTTTACTATAAAGTAGATG |
| 9179 | CTBP2P2 | AAGCTTAAGAAACTGTGTGA |
| 9180 | CYP21A1P | TGTCCGCAGGACGCACCTCA |
| 9181 | CYP21A1P | GCATGGCAAGACGCCCGTCA |
| 9182 | CYP21A1P | GATTAAGCCTCAATCCTCTG |
| 9183 | CYP21A1P | CCAGAGCAGAGACCAACGAC |
| 9184 | CYP21A1P | AGGATTGGGGAAGCCCCCGA |
| 9185 | CYP21A1P | AGAGAAGAGGGACCACAACG |
| 9186 | CYP2D7 | GGTCGGCGAAGGCGGCACAA |
| 9187 | CYP2D7 | GCGCGACAGGATCACCCCTG |
| 9188 | CYP2D7 | GCACAGCACAAAGCTCGTAG |
| 9189 | CYP2D7 | GAGAACCTGCGCATAGTGGT |
| 9190 | CYP2D7 | CAGGTGCCAGAACATTCCCT |
| 9191 | CYP2D7 | ATGGCCACTATCATGGCCAG |
| 9192 | CYP4F24P | TGAACCCCTGACATGTGTGA |
| 9193 | CYP4F24P | GGGGTTGTGGAAAGTACTGA |
| 9194 | CYP4F24P | GGCCCTATGATCAGCCAAAG |
| 9195 | CYP4F24P | GACACATATGTCATGGAACG |
| 9196 | CYP4F24P | GAAATCACAATACCCTGAGT |
| 9197 | CYP4F24P | AAAAGCGATCAACTTGAAGG |
| 9198 | DDX11L2 | TGCCCAGTTTCACTAGAAGT |
| 9199 | DDX11L2 | GGTGGAGAACCTCTGCATGA |
| 9200 | DDX11L2 | GGGAGATAGACATCCAGGCA |
| 9201 | DDX11L2 | GGGAATCCCAAAGAAATGGT |
| 9202 | DDX11L2 | GCTCTGGAGACCTGATGCTA |
| 9203 | DDX11L2 | ACAGCCGGAGAGCATCGCGA |
| 9204 | DGLUCY | TCTATGATCGGCATAGACCC |
| 9205 | DGLUCY | GGCTCATGATTGAAATGTGT |
| 9206 | DGLUCY | GCCTCATCGTGACCACCAGA |
| 9207 | DGLUCY | CTCTGAGATAGCACCTTGAG |
| 9208 | DGLUCY | CACAGTTATGACTGACCTGA |
| 9209 | DGLUCY | ACACACCATGGCATCCCCGT |

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|---|---|---|
| 9210 | DHRS4-AS1 | TGAAATGGACACCATTACAC |
| 9211 | DHRS4-AS1 | GCAGAACATATGTAACCAGA |
| 9212 | DHRS4-AS1 | GACCGCTCACAGCGGTACCG |
| 9213 | DHRS4-AS1 | CAAGACCTCACTAACACACA |
| 9214 | DHRS4-AS1 | ATCTCTGTAGTGAAAGTGGG |
| 9215 | DHRS4-AS1 | AAAGAGTACTATTGATCCAG |
| 9216 | DIAPH2-AS1 | TTTGTCCATTTCACAATGTG |
| 9217 | DIAPH2-AS1 | ATGACTTGATGTCCTCCTTG |
| 9218 | DIAPH2-AS1 | ATGACCCAAATTCCTCCCAT |
| 9219 | DIAPH2-AS1 | ATATATATATATGCTGGACA |
| 9220 | DIAPH2-AS1 | ACTATATCTTGGAAGACGGA |
| 9221 | DIAPH2-AS1 | ACAGTGTATGCAATGGTATG |
| 9222 | DKFZP434A062 | GCCCTCAGGTGACAGAACCG |
| 9223 | DKFZP434A062 | GAAGCCACGTCACACCACAT |
| 9224 | DKFZP434A062 | CAGGTGACAGGCCTGACATG |
| 9225 | DKFZP434A062 | ATAAACACGAGGTTAAAAAG |
| 9226 | DKFZP434A062 | AGTTACGTGATAGCGCAAGG |
| 9227 | DKFZP434A062 | AGGCTGAGCAGTTAGAACCG |
| 9228 | DOC2GP | GAGTGCAAGACCCTTAGGTG |
| 9229 | DOC2GP | GACCCATGGTACAGCGACAG |
| 9230 | DOC2GP | CTTCGGACACACACCGTTCG |
| 9231 | DOC2GP | CACGAGGGTACCTGTCTGGG |
| 9232 | DOC2GP | CAAAGCCAATCTGCTGCCAG |
| 9233 | DOC2GP | AGCTGTAGCACAGTGACAGT |
| 9234 | DOCK9-DT | TCCTCCGGTCTTCGGACGTG |
| 9235 | DOCK9-DT | GTGGCACCGATCGGAACCCG |
| 9236 | DOCK9-DT | GGTTACAGGCGACATAACCG |
| 9237 | DOCK9-DT | GGAGTCAGAAGCCTAAAGGG |
| 9238 | DOCK9-DT | CGGGGAGCCTGACTGAACGG |
| 9239 | DOCK9-DT | CACAGGGTGGCTGTCGCTAG |
| 9240 | DPH6-DT | TAAACAAACAAATTGCACAG |
| 9241 | DPH6-DT | GCTTCCGAGAACAATAGCAA |
| 9242 | DPH6-DT | CTTTCAGCGCCACTTCATGG |
| 9243 | DPH6-DT | ATCATGGTTAAGGTTTACCC |
| 9244 | DPH6-DT | AGGCGGCGGAGCGAACACCC |
| 9245 | DPH6-DT | ACGGCCTAACCACCTAAGTG |
| 9246 | DPY19L1P1 | TTAATGTATTAATAACAAGG |
| 9247 | DPY19L1P1 | TATGAGAAGCTTTCGCGGAG |
| 9248 | DPY19L1P1 | ATATGTCGGACGGTTACCAG |
| 9249 | DPY19L1P1 | AGGTTGTGTCCACATCACAC |
| 9250 | DPY19L1P1 | AACGTGTCAGGGACTATGTG |
| 9251 | DPY19L1P1 | AAAGAACTGTGGACAGCACA |
| 9252 | DRAIC | TCACCCACACGAGCCCAATG |
| 9253 | DRAIC | GGGCCCACCCGTAGTATGGT |
| 9254 | DRAIC | GCAGGCTGAAAAGTTAAGTG |
| 9255 | DRAIC | CATGATGGCCCCTTTATGAG |
| 9256 | DRAIC | AGCTTCACAAGTCGAAACCC |
| 9257 | DRAIC | AAGGGGTGGTCAATCCTGAG |
| 9258 | DUXAP8 | TTGGAGTAAGGAATCCTCAC |

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|---|---|---|
| 9259 | DUXAP8 | TGGCCTTCTATTCCACAGCA |
| 9260 | DUXAP8 | TAATTGAAAGGTGCTATAGG |
| 9261 | DUXAP8 | GGTACAGAAGATACACAAAG |
| 9262 | DUXAP8 | GAGTAGGAGGCAGGTCTCCG |
| 9263 | DUXAP8 | ATGCAGAAAGAGAGTTCTGG |
| 9264 | ECPAS | TAGTGGTATCAACAGTGTCG |
| 9265 | ECPAS | TAGTGATACACGCCACAGTG |
| 9266 | ECPAS | GGCACAGCGAACTCTCATGG |
| 9267 | ECPAS | GAACGAGCAATCCAAACACT |
| 9268 | ECPAS | CATGGCAGTAAGAAGCGTAG |
| 9269 | ECPAS | AACTGGTAACGATAAAGTCG |
| 9270 | EEF1A1P10 | TCTGGTAAAAGGCTAGGAGA |
| 9271 | EEF1A1P10 | TCTAACGGTGACTGGAGCAA |
| 9272 | EEF1A1P10 | TCCATCACTGATCAAGAGTG |
| 9273 | EEF1A1P10 | TCATTGGACATGTAGATTCG |
| 9274 | EEF1A1P10 | CATGATTACAGGGACATCAC |
| 9275 | EEF1A1P10 | ATCCAGAACCTCAAACAGCG |
| 9276 | EEF1A1P11 | TTTGAATGAAGCTCTTCCTG |
| 9277 | EEF1A1P11 | TACTGTTCTTGTTGGCCGAG |
| 9278 | EEF1A1P11 | GCCAGGAACCATATCAGCAA |
| 9279 | EEF1A1P11 | ATTACAGGGACATCTCAGGC |
| 9280 | EEF1A1P11 | ATGAGACAGACACTTGCGGT |
| 9281 | EEF1A1P11 | ACCCAGTGTATATGCCAGAA |
| 9282 | EEF1A1P12 | TGCATGCAATATGAGCCGTG |
| 9283 | EEF1A1P12 | GTGTCCAATGACGACAATGT |
| 9284 | EEF1A1P12 | CTTCCATCACTGATTAAGAG |
| 9285 | EEF1A1P12 | CATGATTACAGAGACATCTC |
| 9286 | EEF1A1P12 | ATGAGACAGATAGTTACAGT |
| 9287 | EEF1A1P12 | AAGGAAAGGAGAATGTTCTG |
| 9288 | EEF1A1P19 | TGCATGCAATGTGAGCCGCG |
| 9289 | EEF1A1P19 | TCTGGTGGCAAACCCATTGT |
| 9290 | EEF1A1P19 | GGCACTGCCATCCTTACGGG |
| 9291 | EEF1A1P19 | GCCACCCAACTCTTAATCAG |
| 9292 | EEF1A1P19 | GATGAAGTCTCTGAGTCCTG |
| 9293 | EEF1A1P19 | ACAGCAAAATGACCCAAAGG |
| 9294 | EEF1A1P22 | TCTGTCAAGGATCTTTGTCG |
| 9295 | EEF1A1P22 | TCACCATTCATATCTCCTTG |
| 9296 | EEF1A1P22 | TACAGGAACCATGTCAACGA |
| 9297 | EEF1A1P22 | CTACAGCCAGTAGAGATACG |
| 9298 | EEF1A1P22 | CCAGTACAGGGACGTAGCCA |
| 9299 | EEF1A1P22 | ATGAGACAGACAGTTGTCAT |
| 9300 | EEF1A1P27 | TGTAACGTCGACTGGAGCAA |
| 9301 | EEF1A1P27 | GCGCACATGCTACTGTGTCA |
| 9302 | EEF1A1P27 | GACACCTCAGTCTTTACCAG |
| 9303 | EEF1A1P27 | CATCCAGACCAAATCAATGG |
| 9304 | EEF1A1P27 | CAACTGACAAGACCTTAAGT |
| 9305 | EEF1A1P27 | ATGAAACAGACAATTGCTGT |
| 9306 | EEF1A1P7 | TCATCACAAACATCTTTACA |
| 9307 | EEF1A1P7 | GGTGTGAAATAACTAATCAC |

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|---|---|---|
| 9308 | EEF1A1P7 | GCCACCCTGGTATTAAGCAG |
| 9309 | EEF1A1P7 | CCCTGTACTAGATTGCCACA |
| 9310 | EEF1A1P7 | CAAGCAGCAAAGCAACCCAG |
| 9311 | EEF1A1P7 | ACAGGTTTGCAACAGAACAC |
| 9312 | EFCAB10 | TTTGAGATGATGGACTCCTC |
| 9313 | EFCAB10 | TTTCCAAATACTCCGCGGCT |
| 9314 | EFCAB10 | TATGGATAACTCTAACATTG |
| 9315 | EFCAB10 | TACCCGGCCGAAAGAAAAGG |
| 9316 | EFCAB10 | GGAAAAGCATCAGATCAAGG |
| 9317 | EFCAB10 | AATTGCAAAAGTAACAGGCG |
| 9318 | EIF4BP6 | TCAAGCACTGGATAAAGACA |
| 9319 | EIF4BP6 | TAACGATGACGATGTGTACA |
| 9320 | EIF4BP6 | GAGGCCGCCATGTTGGCAGA |
| 9321 | EIF4BP6 | CTCCCAACTAACCCCCTTGG |
| 9322 | EIF4BP6 | ATGGGCCAAAACTAGAACGA |
| 9323 | EIF4BP6 | ATGAAGACCAATATGACAGA |
| 9324 | ELDR | TCTTGCATTGTCACACGGAG |
| 9325 | ELDR | GTGTGTAAAAATCGCTCCAG |
| 9326 | ELDR | GGTTTGCTGAGATTTAACAG |
| 9327 | ELDR | GGCGCTCGCAAACGTCCGGG |
| 9328 | ELDR | CGCCACGATGCACTCTAACG |
| 9329 | ELDR | CAATTACAGTGTTTAGACGG |
| 9330 | ELL2P1 | TTAACAAACACAAGTCTCGG |
| 9331 | ELL2P1 | TCTATCGAATTGGATTTGCA |
| 9332 | ELL2P1 | CCGACATCTTAAACTCCCAG |
| 9333 | ELL2P1 | AGTGTGTGCAACAAACGACT |
| 9334 | ELL2P1 | ACTTTAATAGAACTGAACCA |
| 9335 | ELL2P1 | AATCCTTTGAAGTATACGAG |
| 9336 | ELOA | TGGTCGACGTACATCTGATG |
| 9337 | ELOA | TAGGATTCAAAAGACATGGT |
| 9338 | ELOA | GCTATAGGATCGGCTCCCCG |
| 9339 | ELOA | GAGGATATCAGCTCGAGGGA |
| 9340 | ELOA | CTCAGTTCAGAAATTACCCA |
| 9341 | ELOA | CCACAAGGACAAACGCCCCG |
| 9342 | ELOB | TCGTCGAGGGCATCCTCAAG |
| 9343 | ELOB | GCTTCACCAGTCAAACAGCA |
| 9344 | ELOB | CTTGGCGTCCGTGAAGATGG |
| 9345 | ELOB | CTTCAGTTCGAACACCGTGC |
| 9346 | ELOB | AGGACGTGTTCCTCATGATC |
| 9347 | ELOB | AGCGGCCTCCTGACGAGCAG |
| 9348 | ELOC | TTACTTTACTTTAGATGGAG |
| 9349 | ELOC | TGGGAATTCAGGAATCTCGG |
| 9350 | ELOC | AGGTCCTTCACAGCCACCAT |
| 9351 | ELOC | ACTTTCGATAGCACATGTGA |
| 9352 | ELOC | AATTGGGAATTCAGGAATCT |
| 9353 | ELOC | AATTGCACCTGAAATTGCAC |
| 9354 | EXTL3-AS1 | GTCCTTTGCTCCATGCTCTG |
| 9355 | EXTL3-AS1 | GGCTCTCCTCCAAAGGTACG |
| 9356 | EXTL3-AS1 | GCAGACTCACAAGATCAAAG |

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| 9357 | EXTL3-AS1 | CATCTCCACACTGGCGAGAG |
| 9358 | EXTL3-AS1 | AGGAGACACCACAGAAGACA |
| 9359 | EXTL3-AS1 | ACCGCGTCCGAAGACCGCCG |
| 9360 | FAM225A | GGGAACACAGTATTAGACCT |
| 9361 | FAM225A | CTGGGCTTGGACTCAAACCG |
| 9362 | FAM225A | CATCCTACATCACAAAACAG |
| 9363 | FAM225A | CAATAATATAAACATGTAGG |
| 9364 | FAM225A | ATGTGCGTACACAAACAGAG |
| 9365 | FAM225A | AGCTGTGAAATAGATCATGG |
| 9366 | FAM225B | GTCCGGGTATCCTAAGCATG |
| 9367 | FAM225B | GGTCCACTAACAAAACTGAG |
| 9368 | FAM225B | GCAACGCATGAGTTTGTGAG |
| 9369 | FAM225B | CGGACACTCAGGATGCACTT |
| 9370 | FAM225B | ATCTGCATAATATTTCACAA |
| 9371 | FAM225B | AGAGAGGCTAGACCTGAGGG |
| 9372 | FAM83A-AS1 | TGCCTCACCATCCATTAGCG |
| 9373 | FAM83A-AS1 | GGAGCTAAGGAAGTGCTCTG |
| 9374 | FAM83A-AS1 | CCTCCTAATTGACAGAAGTG |
| 9375 | FAM83A-AS1 | CCGAGATTGTAAATGACATG |
| 9376 | FAM83A-AS1 | AGCACCTGATACATTATACA |
| 9377 | FAM83A-AS1 | AGAGCTGGTGACCCTAGTCA |
| 9378 | FER1L4 | TGTTCGAATTTCATGACACG |
| 9379 | FER1L4 | TGCCTGGTGATACCTCAACA |
| 9380 | FER1L4 | TGAGGTCGTCAGAACCCACG |
| 9381 | FER1L4 | CGAGGCTTGATGTCAACTGG |
| 9382 | FER1L4 | CAGCGAAACAGATTGCACCT |
| 9383 | FER1L4 | CACCATGATCGACCCCACCG |
| 9384 | FEZF1-AS1 | TTTCGCGGAAAGTTAGAGTG |
| 9385 | FEZF1-AS1 | GGTTTCCGGGAAGACGCCTA |
| 9386 | FEZF1-AS1 | CTTGGCGCACCAATGACTCG |
| 9387 | FEZF1-AS1 | AGACACCGGCAACCGGAGTG |
| 9388 | FEZF1-AS1 | ACAAGCGTAAAACGAACTGG |
| 9389 | FEZF1-AS1 | AAACAACCATATTCAAGACA |
| 9390 | FLJ46906 | TGGGTGACCCATTCCACCAG |
| 9391 | FLJ46906 | TGAGTCTCAGATACCATATG |
| 9392 | FLJ46906 | GTCCCACCCTCACCCCACAA |
| 9393 | FLJ46906 | CTAGCCAGTGCCCAACACAC |
| 9394 | FLJ46906 | AGACTGGGCCCGACTCCCAT |
| 9395 | FLJ46906 | AAAAAGTCTCACTGAAGGGT |
| 9396 | FLNC-AS1 | GGGCAGATGGAACCCCACTT |
| 9397 | FLNC-AS1 | GCGGTCTGGAAAATTCCCTA |
| 9398 | FLNC-AS1 | GACGCAGTTACTCATCTCAA |
| 9399 | FLNC-AS1 | AGTTAATCATGAAACCAGCG |
| 9400 | FLNC-AS1 | AGAGGGAACAGTCAGTGACT |
| 9401 | FLNC-AS1 | ACTAACAAAAATGGCTCAGT |
| 9402 | FUNDC2P4 | TTGGCTGTAACAGTTGTGGG |
| 9403 | FUNDC2P4 | GAGCAATCAGATACCTACCA |
| 9404 | FUNDC2P4 | CAGTCTCTACACTCCATCAT |
| 9405 | FUNDC2P4 | CACTCGGATTTGCTACAGCA |

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| 9406 | FUNDC2P4 | ACGCAGAGGATCCGCGCTGT |
| 9407 | FUNDC2P4 | AATTTGCTAAGAAACAGCCA |
| 9408 | GACAT3 | TCACAAATAGCATCTATGCA |
| 9409 | GACAT3 | GTGATCTCCAACGTTCATTG |
| 9410 | GACAT3 | GCTGCGAGTTCCATGTGAGA |
| 9411 | GACAT3 | GCGCATAGGACAGTCTCAAG |
| 9412 | GACAT3 | AGACCAGTGACCTATTGAAG |
| 9413 | GACAT3 | AATGCAAATTAAGCACAAAG |
| 9414 | GAPDHP14 | TTTATTGATGGTACACAAGG |
| 9415 | GAPDHP14 | TGCCAGTGCTCATTATGTTG |
| 9416 | GAPDHP14 | TCCTCCGGGAACACGGTGAT |
| 9417 | GAPDHP14 | GGGAGATTCTCACTGTCATG |
| 9418 | GAPDHP14 | CTTGAAAAAGTGGTTGTTGG |
| 9419 | GAPDHP14 | CATGGGGTCATCAACAGACA |
| 9420 | GAPDHP45 | GCTTGACAAAGTGGTCGTCG |
| 9421 | GAPDHP45 | GAGGAGGGGAGATTCTCAGT |
| 9422 | GAPDHP45 | CCTGAAGAGGGAGACACCAT |
| 9423 | GAPDHP45 | CAGGCCCACAACTGACACGT |
| 9424 | GAPDHP45 | AGCATCGAAGGTGAAAGAGT |
| 9425 | GAPDHP45 | AGAGCACGAGAGGACGAGAG |
| 9426 | GBA3 | TGGATCTACGTGGTACCATG |
| 9427 | GBA3 | TCTTGATGACACTCAACGCT |
| 9428 | GBA3 | TAGAAAAATTATGGATCACA |
| 9429 | GBA3 | GCCTCCATGAGTCAAAAGCA |
| 9430 | GBA3 | CCAAAGTGAGGGATACCCGG |
| 9431 | GBA3 | ACCCCGAGTCCCTTACACAT |
| 9432 | GGT8P | TCAGAATGTGTCCCCACATG |
| 9433 | GGT8P | GTTGCTTTGAGAGAGGCATG |
| 9434 | GGT8P | GACAGTAAGTCCTGGCCCCG |
| 9435 | GGT8P | CCTTGCCTACCTCCTCACAG |
| 9436 | GGT8P | ATGGCTCTGCTGCTCCCATG |
| 9437 | GGT8P | AGCAGTGCTCGGAGATTGGG |
| 9438 | GLUD1P3 | TGCACACTTGTATGTCATCA |
| 9439 | GLUD1P3 | GTGTGGTGCAAAAAGCCAGA |
| 9440 | GLUD1P3 | GGCGCCTGGACGACTTTCAG |
| 9441 | GLUD1P3 | CTTGGGGAGGACTAAGGCAA |
| 9442 | GLUD1P3 | CGGGAGGGATACGGACCCGG |
| 9443 | GLUD1P3 | CCGGAGTCACCCAAACCAAA |
| 9444 | GSDME | TTCTATGAGTACATCGCCAA |
| 9445 | GSDME | TCTTCTGTGTCAAAACGCAC |
| 9446 | GSDME | GTATAACTCAATGACACCGT |
| 9447 | GSDME | GGAGAAGTGTGGTGGCATCG |
| 9448 | GSDME | CAAACTCTCGAAAGACCAGG |
| 9449 | GSDME | ATGAAGACTGGCTCTCTACG |
| 9450 | GTF2IP20 | TTTCTGATGCACTTGAGCAG |
| 9451 | GTF2IP20 | TCTGGTGCTCAGGTGTGTTG |
| 9452 | GTF2IP20 | TAAACAAATTAGAAGCCAAG |
| 9453 | GTF2IP20 | GGTGTTCGGCTGCGTCACTG |
| 9454 | GTF2IP20 | GGATTGTAGAGGCCGACGGG |

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|---|---|---|
| 9455 | GTF2IP20 | ATAGAAAACTATGTCTGGCG |
| 9456 | GUSBP8 | TGCTGGGTACCAACCTCTGG |
| 9457 | GUSBP8 | GTGGCTGGTGCAGAAGGTGT |
| 9458 | GUSBP8 | CCCTGTGGGGCTCCGCACTG |
| 9459 | GUSBP8 | CCACGGCGTCAACAAGCATG |
| 9460 | GUSBP8 | CAGCCACTATCCCTACACAG |
| 9461 | GUSBP8 | AGAGCCAGTTCCTCATCAGT |
| 9462 | H1-0 | GTATATCAAGAGCCACTACA |
| 9463 | H1-0 | GGTGTCCTCAAGCAGACCAA |
| 9464 | H1-0 | GAAGGCATCCAAGCCCAAGA |
| 9465 | H1-0 | CTTCTGAATGGACTGGCGCG |
| 9466 | H1-0 | CGACGAACCCAAGAAGTCAG |
| 9467 | H1-0 | CAAGTATTCAGACATGATCG |
| 9468 | H1-1 | GAAGGCAAAGAAACCTGCTA |
| 9469 | H1-1 | CTTCTCCACGTCGTAGCCTG |
| 9470 | H1-1 | CGATCAGCTCTGACACGGAA |
| 9471 | H1-1 | CCTGGTAAGCAAGGGAACGT |
| 9472 | H1-1 | ACCACCACGCTCCTTAGAGG |
| 9473 | H1-1 | AAAGGTGGCTACAAAAACTA |
| 9474 | H1-10 | TGGTGGTGGAGACCATCCGT |
| 9475 | H1-10 | GTTGAGCTTGAAGGAACCGT |
| 9476 | H1-10 | GCTGGCCAAGATCTACACCG |
| 9477 | H1-10 | GCGCCTTGATCGAGTACTTG |
| 9478 | H1-10 | CCTGCCAGTGACGACCGCCG |
| 9479 | H1-10 | ATTCTTCCTCTTCTTAGATG |
| 9480 | H1-2 | TCCGCTACGCTCTTTAGAGG |
| 9481 | H1-2 | GGGGGACCAGACGCCTTACG |
| 9482 | H1-2 | GGCTGCTCTGAAAAAAGCGT |
| 9483 | H1-2 | GGCACTCTGGTGCAAACGAA |
| 9484 | H1-2 | CAAACCTAAGAAGCCAGTTG |
| 9485 | H1-2 | AACAACAGCCGTATCAAACT |
| 9486 | H1-3 | GTGATAAGCTCAGATACTGG |
| 9487 | H1-3 | GCAGCTTCTAAGGAGCGCAG |
| 9488 | H1-3 | CTGGTGCAGACCAAAGGTAC |
| 9489 | H1-3 | CGCGCTTAAGAAAGCGCTTG |
| 9490 | H1-3 | AGGCTGGCGCAGCCAAGCCT |
| 9491 | H1-3 | AACAACAGCCGTATCAAGCT |
| 9492 | H1-4 | TTTGAAGGAACCCGACGCGC |
| 9493 | H1-4 | TAAGGCTAAAAAGGCAGGCG |
| 9494 | H1-4 | GTAATGAGCTCGGACACCGG |
| 9495 | H1-4 | GGCCGCTCTCAAGAAAGCGC |
| 9496 | H1-4 | AAGAAGGCCCGCAAGTCTGC |
| 9497 | H1-4 | AACAACAGCCGCATCAAGCT |
| 9498 | H1-5 | TAAAGCTAAGAAGCCCGCGG |
| 9499 | H1-5 | GCTGCTTCTAAGGAGCGCAA |
| 9500 | H1-5 | CTTTAAACTCAACAAGAAGG |
| 9501 | H1-5 | CTGCTAAGCGCAAAGCGACG |
| 9502 | H1-5 | AGCGCCGGTGGAGAAATCCC |
| 9503 | H1-5 | AAGAAGGCCTTAGCGGCCGG |

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|---|---|---|
| 9504 | H1-6 | TTCCAACCAAGAAGCGAGGG |
| 9505 | H1-6 | TCCTAAATCTACCAGAAGCA |
| 9506 | H1-6 | TCAGTGTCACAGGAACGAGT |
| 9507 | H1-6 | GGTTGCGCTCAAGAAGGCAT |
| 9508 | H1-6 | CTCAAGAGCTTAGTGAACAA |
| 9509 | H1-6 | AAGGGCCTCGGTGATCAACT |
| 9510 | H1-8 | GCTTACTTTGAAGCTGCCAG |
| 9511 | H1-8 | GCACCATGCGTAGCACCGGG |
| 9512 | H1-8 | GAGAAGGCTCGCAAGCAAGG |
| 9513 | H1-8 | CTCTCCTCAGGCCCGAGCCA |
| 9514 | H1-8 | CCTGCACAAGTACCCAACAG |
| 9515 | H1-8 | AAGGAGGACCCTCCCAACGT |
| 9516 | H1-9P | GGATCAAGGACGGTCACCCA |
| 9517 | H1-9P | GCTTATCAAGGGGGTTCGAA |
| 9518 | H1-9P | GAGGCTACCAGAATTCTGTG |
| 9519 | H1-9P | CCACTGCACTGAGCCAATGG |
| 9520 | H1-9P | AAGACACTTCACCTACCCCA |
| 9521 | H1-9P | AACTCAAATACTGCCATGGG |
| 9522 | H2AB1 | TATTGAGTACCTGACGGCCA |
| 9523 | H2AB1 | GTGGAGCGCAGTCTACGGGA |
| 9524 | H2AB1 | GGTACTCAATAACCGCAGCG |
| 9525 | H2AB1 | CTGCTCTCGCACCGTCCGAG |
| 9526 | H2AB1 | CGCTCAGCGCCTGAGTCGCA |
| 9527 | H2AB1 | CGCCAGCACCGGAGGACCCT |
| 9528 | H2AB2 | GGCGCCGGTCTACCTCGCTG |
| 9529 | H2AB2 | GCCCGCCAGCTCCAGGACCT |
| 9530 | H2AB2 | GACTCAGGCGCTGAGCGTAG |
| 9531 | H2AB2 | CTGAAAACGAAAGCTCCGCT |
| 9532 | H2AB2 | CGCCGAGGGTCCTCCGGTGC |
| 9533 | H2AB2 | CCCGTAGACTGCGCTCCACC |
| 9534 | H2AB3 | TGCGGTTATTGAGTACCTGA |
| 9535 | H2AB3 | GGTGGAGCGCAGTCTACGGG |
| 9536 | H2AB3 | GGCCAAGGTCCTGGAGCTGG |
| 9537 | H2AB3 | GCGCCTGAGTCGCACGGCGC |
| 9538 | H2AB3 | CGAGGGTCCTCCGGTGCTGG |
| 9539 | H2AB3 | AAACGAAAGCTCCGCTCGGA |
| 9540 | H2AFZP1 | TTTGAATCACAGTGCGCCGA |
| 9541 | H2AFZP1 | TTCATCGACACCTGAAATGT |
| 9542 | H2AFZP1 | TGCATCAAAAGACTTAAAGG |
| 9543 | H2AFZP1 | CTGGGAAGAAGGGACAACAG |
| 9544 | H2AFZP1 | CCTTTATTGAGCATATCCAC |
| 9545 | H2AFZP1 | ACCATATTTAAGGGTCACTG |
| 9546 | H2AW | TGCGGAGCAACCGGTGCACG |
| 9547 | H2AW | TCCGGTCGTGGTAAGCAGGG |
| 9548 | H2AW | TAAGTCGCGCTCGTCGCGCG |
| 9549 | H2AW | GGCAACTATTCGGAGCGCGT |
| 9550 | H2AW | CCTGGAGCTTGCCGGCAACG |
| 9551 | H2AW | CACCGCGGCCAGATAGACCG |
| 9552 | H2AX | TTCGCGTCTTCTTGTTGTCG |

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|---|---|---|
| 9553 | H2AX | TCCCAGTGGGCCGTGTACAC |
| 9554 | H2AX | GCTCCAGGATCTCAGCGGTG |
| 9555 | H2AX | CGGCGCGCCAGTGTACCTGG |
| 9556 | H2AX | CGCCAACGCGCTCGGCGTAG |
| 9557 | H2AX | CCGCGGCAAGACTGGCGGCA |
| 9558 | H2BC1 | TGTCGTTAAGACCCAGAAAA |
| 9559 | H2BC1 | CTTTGAGCGTATAGCGAGCG |
| 9560 | H2BC1 | CTCAAAGATATCAGTGACGA |
| 9561 | H2BC1 | CATCTACAAAGTGCTAAAGC |
| 9562 | H2BC1 | AGGTGCTACCATTTCCAAGA |
| 9563 | H2BC1 | AAAGCGCAAGAGGACCCGTA |
| 9564 | H2BC10 | GGTGACCAAGGCACAGAAGA |
| 9565 | H2BC10 | GCTTGTTATAATGCGCCAGG |
| 9566 | H2BC10 | GCATCTCGTCCAAGGCTATG |
| 9567 | H2BC10 | CTCGAAAATGTCGTTGACGA |
| 9568 | H2BC10 | CTATTCCGTGTACGTGTACA |
| 9569 | H2BC10 | ACACGGAATAGCTCTCCTTG |
| 9570 | H2BC11 | GAAAAAGGGCTCCAAGAAGG |
| 9571 | H2BC11 | CGCAGGTGAGGCTTCCCGCC |
| 9572 | H2BC11 | CAGAACCTTGTACACATAGA |
| 9573 | H2BC11 | ACTAAGGCGCAGAAGAAAGA |
| 9574 | H2BC11 | ACGAAATGCCGGTGTCAGGG |
| 9575 | H2BC11 | AAACGAATTCATGATGCCCA |
| 9576 | H2BC12 | GTCCGCTCCCGCGCCCAAGA |
| 9577 | H2BC12 | CTTCTTCTGCGCCTTAGTCA |
| 9578 | H2BC12 | CTCGAAGAAAGCCGTGACTA |
| 9579 | H2BC12 | CGTGACTAAGGCGCAGAAGA |
| 9580 | H2BC12 | CGACATCTTCGAACGCATCG |
| 9581 | H2BC12 | CATGATTCCCATGGCCTTAG |
| 9582 | H2BC13 | TAGAAGAGATGCCGGTGTCG |
| 9583 | H2BC13 | GTCTGCTCCCGCCCCGAAGA |
| 9584 | H2BC13 | GGTGACCAAGGCCCAGAAGA |
| 9585 | H2BC13 | GGCATCTCTTCTAAGGCCAT |
| 9586 | H2BC13 | CTTCGAGCGCATCGCAAGCG |
| 9587 | H2BC13 | CTACTCCGTGTACGTGTACA |
| 9588 | H2BC14 | GTTCATGATTCCCATAGCCT |
| 9589 | H2BC14 | CTCAAAGATGTCGTTGACGA |
| 9590 | H2BC14 | CTACTCTGTGTATGTGTACA |
| 9591 | H2BC14 | CGCCGGAGAAGCGTCACGCC |
| 9592 | H2BC14 | CCCTAAAAAAGGCTCCAAGA |
| 9593 | H2BC14 | ACACAGAGTAGCTCTCCTTG |
| 9594 | H2BC15 | GCCTTTCTTCGGGGCAGGAG |
| 9595 | H2BC15 | CTCGAAGATGTCATTGACGA |
| 9596 | H2BC15 | CGCCGGCGAGGCTTCCCGCC |
| 9597 | H2BC15 | CGACACCGGTATCTCGTCCA |
| 9598 | H2BC15 | CCCGAAGAAAGGCTCCAAGA |
| 9599 | H2BC15 | ACAAAGGCCCAGAAGAAGGA |
| 9600 | H2BC17 | TTACTCTATCTACGTGTACA |
| 9601 | H2BC17 | TCTGCTCCTGCCCCCAAAAA |

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|---|---|---|
| 9602 | H2BC17 | CTCCAAGAAAGCCGTAACCA |
| 9603 | H2BC17 | CTCAAAGATGTCATTGACGA |
| 9604 | H2BC17 | CGACACCGGCATCTCATCGA |
| 9605 | H2BC17 | AGATAGAGTAACTCTCTTTG |
| 9606 | H2BC18 | TGTTACGAAAGTGCAGAAGA |
| 9607 | H2BC18 | GATCTCGCGGGATGTGATGG |
| 9608 | H2BC18 | CTACTCCGTTTACGTGTACA |
| 9609 | H2BC18 | CAGCACCTTGTACACGTAAA |
| 9610 | H2BC18 | CACATCCCGCGAGATCCAGA |
| 9611 | H2BC18 | ACGAAAGTGCAGAAGAAGGA |
| 9612 | H2BC19P | TTCGCGCCGGCTCCCAAGAA |
| 9613 | H2BC19P | TCACGTCCCGGAGATCCAGA |
| 9614 | H2BC19P | GGCATCTGGTGCAAGGCCAT |
| 9615 | H2BC19P | GCGAGCGCCAGGTCCCGGCA |
| 9616 | H2BC19P | AGCAGCCGGCGACCCGCGGA |
| 9617 | H2BC19P | ACGTGTACAAGGTGCTGAAG |
| 9618 | H2BC21 | TGAACCGGCAAAATCCGCTC |
| 9619 | H2BC21 | CTACTCCATCTACGTGTACA |
| 9620 | H2BC21 | CGCGGGAGAGGCTTCCCGCC |
| 9621 | H2BC21 | CAGCACCTTGTACACGTAGA |
| 9622 | H2BC21 | AGATGGAGTAGCTCTCTTTG |
| 9623 | H2BC21 | ACCAAAGCCCAGAAGAAAGA |
| 9624 | H2BC3 | TTCTAAGAAGGCTATCACTA |
| 9625 | H2BC3 | TCTGCTCCAGCCCCTAAAAA |
| 9626 | H2BC3 | GCATCTCATCCAAGGCCATG |
| 9627 | H2BC3 | CTATTCTATCTATGTGTACA |
| 9628 | H2BC3 | AGCGCTTATTGTAGTGAGCC |
| 9629 | H2BC3 | AGATAGAATAGCTCTCCTTG |
| 9630 | H2BC4 | TTACTCTGTGTACGTGTACA |
| 9631 | H2BC4 | GAAAGAATTCATGATGCCCA |
| 9632 | H2BC4 | CTTGGAAGAGATGCCAGTGT |
| 9633 | H2BC4 | CGACATATTTGAGCGCATCG |
| 9634 | H2BC4 | ACCAAAGCGCAGAAGAAAGA |
| 9635 | H2BC4 | ACACAGAGTAACTCTCCTTG |
| 9636 | H2BC5 | GGTGACTAAGGCTCAGAAGA |
| 9637 | H2BC5 | GCATCTCTTCCAAGGCAATG |
| 9638 | H2BC5 | CTTCTTGGAGCCCTTCTTTG |
| 9639 | H2BC5 | CTATTCAGTGTATGTGTACA |
| 9640 | H2BC5 | ACACTGAATAGCTCTCCTTG |
| 9641 | H2BC5 | AAGCAGGTCCATCCCGACAC |
| 9642 | H2BC6 | GCATCTCCTCTAAAGCCATG |
| 9643 | H2BC6 | CTCCAAGAAGGCCGTGACCA |
| 9644 | H2BC6 | CGTGTACAAGGTGCTGAAAC |
| 9645 | H2BC6 | CGCCAGGCGGGAAGCCTCGC |
| 9646 | H2BC6 | CATGGCTTTAGAGGAGATGC |
| 9647 | H2BC6 | ATCCGCTCCCGCCCCGAAGA |
| 9648 | H2BC7 | GAAGCGCAAGCGTAGCCGCA |
| 9649 | H2BC7 | CTTCGAGCGCATCGCTGGCG |
| 9650 | H2BC7 | CTCGAAGATATCGTTGACGA |

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|---|---|---|
| 9651 | H2BC7 | CGTGTACAAGGTGCTAAAGC |
| 9652 | H2BC7 | CGACACCGGCATCTCATCCA |
| 9653 | H2BC7 | AAAAAAGGGCTCCAAAAAGG |
| 9654 | H2BC8 | TTCGAAGATGTCGTTAACGA |
| 9655 | H2BC8 | TGGATGAGATGCCAGTATCG |
| 9656 | H2BC8 | TCCGAAGAAGGGTTCCAAGA |
| 9657 | H2BC8 | TAGCACCTTGTACACATACA |
| 9658 | H2BC8 | GAAGCGCAAGCGCAGTCGTA |
| 9659 | H2BC8 | CTTCGAACGCATCGCAGGCG |
| 9660 | H2BC9 | GGTGACCAAGGCGCAGAAGA |
| 9661 | H2BC9 | GCTTGTTGTAATGAGCCAGG |
| 9662 | H2BC9 | GCATCTCCTCCAAAGCCATG |
| 9663 | H2BC9 | GAAGCGTAAACGCAGCCGCA |
| 9664 | H2BC9 | CTACTCCGTATACGTTTACA |
| 9665 | H2BC9 | AAGCAAGTCCACCCCGACAC |
| 9666 | H2BE1 | TGGCAGAGATGCCAATGTCA |
| 9667 | H2BE1 | TCCCAGAACTGCGACCCCCA |
| 9668 | H2BE1 | GTTTGAGCAGCTGGCGTGTG |
| 9669 | H2BE1 | GCCCGGCTGGCCCAGTACTC |
| 9670 | H2BE1 | CAGCACCTTGTAGATATACA |
| 9671 | H2BE1 | AAAAGTCCAAAAAGCGCTGT |
| 9672 | H2BS1 | TCCGCTCCCGCGCCCAAGAA |
| 9673 | H2BS1 | GCTTGTTGTAATGCGGCAGG |
| 9674 | H2BS1 | CTTGTTGTAATGCGGCAGGC |
| 9675 | H2BS1 | CTTCGAACGCATCGCAGGTG |
| 9676 | H2BS1 | AGGCGCAGAAGAAGGACGGC |
| 9677 | H2BS1 | AGCGCTTGTTGTAATGCGGC |
| 9678 | H2BU1 | TTCTAAAAAGGCTGTCACCA |
| 9679 | H2BU1 | GCTTGTTGTAGTGTGCCAGG |
| 9680 | H2BU1 | GACGGCAAGAAGCGCAAGCG |
| 9681 | H2BU1 | CTATTCTATCTACGTGTACA |
| 9682 | H2BU1 | ATCGGCTCCTGCGCCCAAGA |
| 9683 | H2BU1 | AAGCAGGTGCACCCCGACAC |
| 9684 | H2BW1 | TTCTTTGGTTCATGACATAT |
| 9685 | H2BW1 | GGTGATCAGCTGTTCCTCAG |
| 9686 | H2BW1 | GGGCCTCAGCCTTTCCCGGG |
| 9687 | H2BW1 | GCTCTGCTTCTGGGACGTAG |
| 9688 | H2BW1 | CAGTTGGAGTGGCACCTGCG |
| 9689 | H2BW1 | CAGCACCCGGCGGAAATAGG |
| 9690 | H2BW2 | TTCCTCTGAGACAACCTCGG |
| 9691 | H2BW2 | GCGCCACGCCAACCGCCGTG |
| 9692 | H2BW2 | CTTCACCCCCTATTTCCCCC |
| 9693 | H2BW2 | CGATGCGGTCCAATATGTCA |
| 9694 | H2BW2 | CAAAGAGGCCAACTCCACGA |
| 9695 | H2BW2 | ATGGGCCAGCTGACCAGCCT |
| 9696 | H3-3A | CGACCGGTGGTAAAGCACCC |
| 9697 | H3-3A | CAGCTAGCACGCCGCATACG |
| 9698 | H3-3A | AGTCTGCTTTGTACGAGCCA |
| 9699 | H3-3A | AGAGGGCGCACTCTTGCGAG |

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|---|---|---|
| 9700 | H3-3A | ACTGCCCGCAAATCGACCGG |
| 9701 | H3-3A | AAGCACGTTCTCCACGTATG |
| 9702 | H3-3B | GAAGCCTCATCGCTACAGGT |
| 9703 | H3-3B | CAGCTTCCGGATGAGCAGCT |
| 9704 | H3-3B | AGGATTTCAAAACCGACCTG |
| 9705 | H3-3B | AGCTGGCCACGAAAGCCGCC |
| 9706 | H3-3B | ACTGCTCGTAAGTCCACCGG |
| 9707 | H3-3B | AAGCGCTCCCTCTACCGGCG |
| 9708 | H3-4 | TCCGCAAGTTGCCCTTCCAG |
| 9709 | H3-4 | GCTGATGCGCGAGATCGCTC |
| 9710 | H3-4 | GCACCGCTACCGGCCCGGCA |
| 9711 | H3-4 | CTTGCGGATTAGCAGCTCAG |
| 9712 | H3-4 | ACTGCGCGCAAGTCAACGGG |
| 9713 | H3-4 | AAGAGCGCACCTGCCACTGG |
| 9714 | H3C1 | CTCGCACTAAGCAAACTGCT |
| 9715 | H3C1 | CCTGCGCAATCTCGCGCACC |
| 9716 | H3C1 | CCGCTACCGGCCGGGCACCG |
| 9717 | H3C1 | CAGTGGACTTCTGATAACGG |
| 9718 | H3C1 | CAGCGGAGCTCTGGAAACGC |
| 9719 | H3C1 | CAAGGCGCCACGCAAACAGT |
| 9720 | H3C10 | TCTGGTAGCGGCGAATCTCG |
| 9721 | H3C10 | GGGCTTCTTGACACCGCCGG |
| 9722 | H3C10 | GGAGCTCTGGAAGCGCAAGT |
| 9723 | H3C10 | CTGTACCAGGCCGATAGCGA |
| 9724 | H3C10 | CAGCTTTCTGATCAGCAGCT |
| 9725 | H3C10 | ACTGCTCGCAAGTCCACCGG |
| 9726 | H3C11 | TCTGCGCTTCCAGAGCTCGG |
| 9727 | H3C11 | GGGCTTCTTGACGCCACCGG |
| 9728 | H3C11 | CTTGGTACGGGAGATCGCAC |
| 9729 | H3C11 | CCGCTACCGCCCCGGCACCG |
| 9730 | H3C11 | CAAACAGCTCGCAAGTCCAC |
| 9731 | H3C11 | AGCGCTGAAAAGGTAGCTTC |
| 9732 | H3C12 | GTGCCTGGCCTGTAGCGGTG |
| 9733 | H3C12 | GGCGCTGAAATGGCAGTTTG |
| 9734 | H3C12 | CTACCGGCGGCAAGGCACCG |
| 9735 | H3C12 | CGAGCTCTGGAAACGAAGGT |
| 9736 | H3C12 | CAGTCGACTTCTGATAACGG |
| 9737 | H3C12 | AAAAGCGCTCCAGCGACTGG |
| 9738 | H3C13 | GGTAGCCAGCTGCTTCCTCG |
| 9739 | H3C13 | GATCGCGCAGGACTTTAAGA |
| 9740 | H3C13 | CGCGCTCTTGCGGGCCGCTT |
| 9741 | H3C13 | CCTTGCCGCCGGTCGACTTG |
| 9742 | H3C13 | CCGTAGACTTCTGGTAGCGC |
| 9743 | H3C13 | CCGCTACCGGCCCGGCACCG |
| 9744 | H3C14 | GTAGCGCCGGATCTCCCGCA |
| 9745 | H3C14 | GGTGGCCAGCTGCTTCCTCG |
| 9746 | H3C14 | GGCCCGGCACCGTAGCCCTG |
| 9747 | H3C14 | GAGGAAGCAGCTGGCCACCA |
| 9748 | H3C14 | CCGGCGCTACCAGAAGTCCA |

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|---|---|---|
| 9749 | H3C14 | ACTGCTCGCAAGTCGACCGG |
| 9750 | H3C15 | GCTCTTGCGGGCCGCCTTGG |
| 9751 | H3C15 | GCCCGGCACCGTAGCCCTGC |
| 9752 | H3C15 | GCAGGGCTACGGTGCCGGGC |
| 9753 | H3C15 | CTTGCGGATCAGCAGCTCCG |
| 9754 | H3C15 | CCGTGGACTTCTGGTAGCGC |
| 9755 | H3C15 | CAGACTGCTCGCAAGTCGAC |
| 9756 | H3C2 | TTGGTAGCCAGCTGCTTGCG |
| 9757 | H3C2 | CTCGTACTAAACAGACAGCT |
| 9758 | H3C2 | CCGTTACCGCCCGGGCACTG |
| 9759 | H3C2 | CAGCTTCCGAATCAGCAACT |
| 9760 | H3C2 | AGAGCTCTGGAAGCGAAGAT |
| 9761 | H3C2 | AAGAGCGCGCCGGCTACCGG |
| 9762 | H3C3 | TTAGTAGCAAGCTGCTTGCG |
| 9763 | H3C3 | GTAGCGACGGATTTCGCGCA |
| 9764 | H3C3 | GAAACCTCATCGCTACCGCC |
| 9765 | H3C3 | CCTGGTGCGAGAAATCGCCC |
| 9766 | H3C3 | CCTGCGTTTCCAGAGCTCTG |
| 9767 | H3C3 | AGGTTTCTTCACGCCACCGG |
| 9768 | H3C4 | GCTCTTTCGAGCAGCCTTGG |
| 9769 | H3C4 | CTGCTCGCAAGTCCACGGGT |
| 9770 | H3C4 | CGATCTCACGGACTAGACGC |
| 9771 | H3C4 | CCACCGTTACCGGCCCGGCA |
| 9772 | H3C4 | CAGTTTGCGAATCAGCAGCT |
| 9773 | H3C4 | AAGAGCGCTCCAGCCACCGG |
| 9774 | H3C6 | GCGCAAACAGCTGGCCACTA |
| 9775 | H3C6 | GCAGAGCCACGGTGCCAGGG |
| 9776 | H3C6 | CCTGGTGCGAGAAATAGCTC |
| 9777 | H3C6 | CCTGCGCTTCCAGAGTTCCG |
| 9778 | H3C6 | CAGCTTCCGGATTAGAAGCT |
| 9779 | H3C6 | ACGGCTCGTAAATCCACAGG |
| 9780 | H3C7 | GGGCTTCTTCACGCCACCGG |
| 9781 | H3C7 | GATAGCGGCGGATTTCACGG |
| 9782 | H3C7 | CGATCTCACGTACCAGACGC |
| 9783 | H3C7 | CGAGCTCTGGAAGCGCAGGT |
| 9784 | H3C7 | CGACAGTACCAGGCCTGTAG |
| 9785 | H3C7 | ACAGCTCGTAAGTCCACTGG |
| 9786 | H3C8 | TCTGCGCTTTCAGAGTTCCG |
| 9787 | H3C8 | TCGCTACCGTCCCGGCACCG |
| 9788 | H3C8 | GGCGTTGGAAAGGCAACTTG |
| 9789 | H3C8 | GCTCAGTCGACTTCTGATAG |
| 9790 | H3C8 | CCTGAGCGATTTCTCGCACC |
| 9791 | H3C8 | ACTGCACGCAAGTCCACCGG |
| 9792 | H4-16 | TGTCCCGCAGCACCTTCCGG |
| 9793 | H4-16 | TGCGCTTGACGCCCCCACGT |
| 9794 | H4-16 | GTGCTGCGGGACAATATCCA |
| 9795 | H4-16 | GGTGGCAAGGGGCTGGGTAA |
| 9796 | H4-16 | GAAGACTTTGAGGACTCCCC |
| 9797 | H4-16 | ATGTCTGGGCGAGGTAAAGG |

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|---|---|---|
| 9798 | H4C1 | TGTTGTCACGCAACACCTTG |
| 9799 | H4C1 | TGTCTGGACGTGGTAAGGGC |
| 9800 | H4C1 | GGTGTTGCGTGACAACATCC |
| 9801 | H4C1 | GGAGACTCGCGGGGTGCTCA |
| 9802 | H4C1 | GATCTCTGGTCTGATCTACG |
| 9803 | H4C1 | CCCGGCGTGGCGGTGTGAAG |
| 9804 | H4C11 | TGTCTGGCCGCGGCAAAGGC |
| 9805 | H4C11 | TGTCGCGCAGTACTTTACGG |
| 9806 | H4C11 | GTACTGCGCGACAATATCCA |
| 9807 | H4C11 | GGGAAGGGTCTTGGCAAAGG |
| 9808 | H4C11 | CATCTCCGGCCTCATCTACG |
| 9809 | H4C11 | AGATGCGCTTCACGCCGCCG |
| 9810 | H4C12 | GGCGGGAAGGGTCTTGGCAA |
| 9811 | H4C12 | GCGGCGAGCAAGGCGCCGGA |
| 9812 | H4C12 | CATCTACGAGGAGACTCGCG |
| 9813 | H4C12 | ATGTCTGGCCGCGGCAAAGG |
| 9814 | H4C12 | AGTCTCCTCGTAGATGAGGC |
| 9815 | H4C12 | AGTACTGCGCGACAATATCC |
| 9816 | H4C13 | TGTCTGGGCGCGGCAAAGGC |
| 9817 | H4C13 | TGTCGCGCAGAACTTTGCGG |
| 9818 | H4C13 | GTTCTGCGCGACAACATTCA |
| 9819 | H4C13 | GGCGGGAAGGGTCTGGGCAA |
| 9820 | H4C13 | CATCTCAGGCCTTATATACG |
| 9821 | H4C13 | CAAGCCCGCCATCCGACGCC |
| 9822 | H4C14 | TGTCTCTCAAGACCTTGCGG |
| 9823 | H4C14 | GTCTTGAGAGACAACATTCA |
| 9824 | H4C14 | GCATCACCAAGCCTGCCATT |
| 9825 | H4C14 | GAACACCTTCAGCACACCGC |
| 9826 | H4C14 | ATTCGGCGTCTAGCTCGGCG |
| 9827 | H4C14 | ATGTCCGGCAGAGGAAAGGG |
| 9828 | H4C15 | TGTTGTCTCTCAAGACCTTG |
| 9829 | H4C15 | GGAAAAGGCTTAGGCAAAGG |
| 9830 | H4C15 | CTCGGCGTGGCGGCGTTAAG |
| 9831 | H4C15 | CTCATTTACGAGGAGACCCG |
| 9832 | H4C15 | CGTCCCGAATCACATTCTCC |
| 9833 | H4C15 | ACGCCGAGCTAGACGCCGAA |
| 9834 | H4C2 | GGTAAAGGTTTGGGTAAGGG |
| 9835 | H4C2 | GGAGACTCGTGGCGTTCTCA |
| 9836 | H4C2 | ATTCGGCGCCTTGCTAGGCG |
| 9837 | H4C2 | AGCGTCACCGAAAAGTGCTG |
| 9838 | H4C2 | AATTTCCGGTTTGATTTATG |
| 9839 | H4C2 | AAGGCGCCGAATGGCCGGTT |
| 9840 | H4C3 | TATCCCGGAGCACCTTACGA |
| 9841 | H4C3 | GTGCTCCGGGATAACATCCA |
| 9842 | H4C3 | GGAGACTCGAGGTGTGCTTA |
| 9843 | H4C3 | GCAAAGGCGGAAAAGGCTTG |
| 9844 | H4C3 | ATTCGCCGTTTGGCTCGGCG |
| 9845 | H4C3 | AGTCTCCTCATAGATAAGAC |
| 9846 | H4C4 | TGGCGCCAAGCGTCACCGTA |

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|---|---|---|
| 9847 | H4C4 | GTATTGCGTGACAATATCCA |
| 9848 | H4C4 | GGCGGAAAGGGTCTAGGTAA |
| 9849 | H4C4 | CTCATTTATGAGGAAACTCG |
| 9850 | H4C4 | ATGTCTGGCCGCGGTAAGGG |
| 9851 | H4C4 | AAATACGCTTGACGCCGCCG |
| 9852 | H4C5 | TGGTCGCGGCAAAGGCGGAA |
| 9853 | H4C5 | GGTCCTGCGAGATAACATCC |
| 9854 | H4C5 | GGAAAGGGACTGGGTAAAGG |
| 9855 | H4C5 | CCGGCGCCTTGCTCGTCGCG |
| 9856 | H4C5 | CATTTCTGGTCTCATCTACG |
| 9857 | H4C5 | AGGCGCTAAGCGTCACCGTA |
| 9858 | H4C6 | TGTCACGCAGCACTTTGCGA |
| 9859 | H4C6 | GTGCTGCGTGACAACATACA |
| 9860 | H4C6 | GGTAAAGGTTTAGGAAAGGG |
| 9861 | H4C6 | GAACACCTTAAGAACACCGC |
| 9862 | H4C6 | CGTCCCGTATCACATTCTCC |
| 9863 | H4C6 | CGCCGCGTCGGGCCAAGCGA |
| 9864 | H4C7 | TATCGCTCAGTACCTTGCGA |
| 9865 | H4C7 | GTACTGAGCGATAATATTCA |
| 9866 | H4C7 | GGAACACCTTGAACACCCGG |
| 9867 | H4C7 | CGGCGCTTGGCCCGGCATGG |
| 9868 | H4C7 | CAAGCGCCGGATAGTGCACT |
| 9869 | H4C7 | ATGTCTGTTCGGGGCAAGGC |
| 9870 | H4C8 | GGAGACTCGTGGTGTTCTGA |
| 9871 | H4C8 | CGTCACGAATCACGTTCTCC |
| 9872 | H4C8 | ATGTCTGGCCGTGGTAAAGG |
| 9873 | H4C8 | AGGTGGAAAAGGTTTGGGTA |
| 9874 | H4C8 | AGGAGCTAAGCGTCATCGCA |
| 9875 | H4C8 | AATTTCTGGCCTTATCTATG |
| 9876 | H4C9 | TGTTGTCGCGCAGCACCTTG |
| 9877 | H4C9 | GTGCTGCGCGACAACATCCA |
| 9878 | H4C9 | GTATCACCAAGCCAGCCATT |
| 9879 | H4C9 | GGAACACCTTCAACACTCCG |
| 9880 | H4C9 | CGTCCCGGATCACGTTCTCC |
| 9881 | H4C9 | ATGTCAGGACGCGGCAAAGG |
| 9882 | HACD1 | GTTCAAGAATCTTTATGGTG |
| 9883 | HACD1 | CGGCGAGCGGAGGCGCCTGG |
| 9884 | HACD1 | CCAGTCACAATCACAGAAGT |
| 9885 | HACD1 | ATGGCGTCCAGCGACGAGGA |
| 9886 | HACD1 | ATGGAAAAAGGAACACACAG |
| 9887 | HACD1 | ACGACATCGCCATGACCGCG |
| 9888 | HAR1B | TCATCCCTGAATGTCCACAC |
| 9889 | HAR1B | TCAACACTTGAACAAGCAAG |
| 9890 | HAR1B | ATGTGTAATAATCACAACAG |
| 9891 | HAR1B | AGAAACTCACACATGATTTG |
| 9892 | HAR1B | AATTGTCATGAGTACATACA |
| 9893 | HAR1B | AAAAGCAGAAGCTACGTCCG |
| 9894 | HGH1 | GTAGGAAGGCCCGCGCCGCA |
| 9895 | HGH1 | GCGACTGAGGTTGGCTAGCG |

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|---|---|---|
| 9896 | HGH1 | CCTGCACGAGACATTGCTGG |
| 9897 | HGH1 | CCGGCCGCGCGCTGTTGGCG |
| 9898 | HGH1 | CCCTGCGTACAGAGGAGTCG |
| 9899 | HGH1 | ATCCCTCAGGACATCACGAG |
| 9900 | HID1-AS1 | GAGGAGAATGCCCATCTGAG |
| 9901 | HID1-AS1 | CTGCACAGTCTGAATGACAG |
| 9902 | HID1-AS1 | CCAGGAACTCCCAAGTGACA |
| 9903 | HID1-AS1 | AGTGATGGGCAAGACCAAAG |
| 9904 | HID1-AS1 | AAAGCATCGGGATTACAAGC |
| 9905 | HID1-AS1 | AAAATAATAAAGGCAAGTGA |
| 9906 | HIKESHI | TGTTAATTTCTTGCAGGAGA |
| 9907 | HIKESHI | GGAACAATCCCATTTCCTGA |
| 9908 | HIKESHI | GCAAACAGCTGCACAGCAAG |
| 9909 | HIKESHI | CCAGCATAAAAACCACAACA |
| 9910 | HIKESHI | ATGGCTCAGCAGACTCCTGT |
| 9911 | HIKESHI | ATGCCAGTATGGCAACTCCT |
| 9912 | HIST2H2BC | TGCGCTCGAAGATGTCGTTG |
| 9913 | HIST2H2BC | TGAAGCCAAAAACATCAACT |
| 9914 | HIST2H2BC | CGACACCGGCATCTGGTGCA |
| 9915 | HIST2H2BC | CAAGAAAGATTCTTTAACTG |
| 9916 | HIST2H2BC | AGAAAATAGTTATCTGTGCT |
| 9917 | HIST2H2BC | ACAAAGCAGCCGGCGACCCG |
| 9918 | HNRNPA1P21 | TTTACCAAACCATGAAACCA |
| 9919 | HNRNPA1P21 | GGAACGCTCACGAACTGCAT |
| 9920 | HNRNPA1P21 | CGTGCTTCAACCAGCCAAAG |
| 9921 | HNRNPA1P21 | CAGAAATACTGTACTGTGAG |
| 9922 | HNRNPA1P21 | CAAGGTGGATGGAAGAACTG |
| 9923 | HNRNPA1P21 | AACTCAACAAAGCATAGTGG |
| 9924 | HSD17B7P2 | TGTACCCCAGAATGTACAGA |
| 9925 | HSD17B7P2 | TGAGTGCGCGAAGATGCGAA |
| 9926 | HSD17B7P2 | GGCGTGCAGGAATATGAGCA |
| 9927 | HSD17B7P2 | GAAATCTAATTTCAGCCTCG |
| 9928 | HSD17B7P2 | AGGCCCGGAAGAATGACTGC |
| 9929 | HSD17B7P2 | AAATTACATTATGACCCAGA |
| 9930 | HSPA7 | TGTAGCGCTCAAGCCCACCA |
| 9931 | HSPA7 | TCATGAAGCCGAGCAGTACG |
| 9932 | HSPA7 | GGTGCTGCCGATCATCAATG |
| 9933 | HSPA7 | GGCTTTCACCTCAAAGACAC |
| 9934 | HSPA7 | CTGGCGGCAGAGAAACCGCA |
| 9935 | HSPA7 | CAAACGTCACCTCTATCTGG |
| 9936 | HSPA8P1 | TTTATAAACACTATTGTACA |
| 9937 | HSPA8P1 | TGCAATGAACCCCACCAACG |
| 9938 | HSPA8P1 | GGCACCACATACTCTTGTGT |
| 9939 | HSPA8P1 | ATGAGTAGAACCACCAACCA |
| 9940 | HSPA8P1 | AGGTGAGCATACCATGACCA |
| 9941 | HSPA8P1 | AAGCTGAAGATCAGAAGCAG |
| 9942 | HSPC324 | GGAGAACACAGGACGTCCAC |
| 9943 | HSPC324 | GAACAGTAAGTGTGTCCTGG |
| 9944 | HSPC324 | CTGCGAAGACCAGCACCTTG |

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|---|---|---|
| 9945 | HSPC324 | CGCTCTGACATCTTCCGTAG |
| 9946 | HSPC324 | CAGCACGGCGCGCACACACA |
| 9947 | HSPC324 | AGAACCCTCATCAACCGAGG |
| 9948 | IBA57-DT | TAGTAGGTGACACATCTACA |
| 9949 | IBA57-DT | GGGAAAGTGGCCACTGTACA |
| 9950 | IBA57-DT | GATGCGTAGTAACATCAGTG |
| 9951 | IBA57-DT | CTCCTCGAGAAAGCACGGTG |
| 9952 | IBA57-DT | CATCATGTCACACTGATTAG |
| 9953 | IBA57-DT | AATGACACAACAGCCACACG |
| 9954 | IGHG3 | TCAGCACCTGAACTCCTGGG |
| 9955 | IGHG3 | GTACAACAGCACGTTCCGTG |
| 9956 | IGHG3 | GGTCCAGTTCAAGTGGTACG |
| 9957 | IGHG3 | CTACTTCCCAGAACCGGTGA |
| 9958 | IGHG3 | ACACACCTCCCCCATGCCCA |
| 9959 | IGHG3 | ACACAACTCACACATGCCCA |
| 9960 | IGHG4 | TCAGCACCTGAGTTCCTGGG |
| 9961 | IGHG4 | GTTCAACAGCACGTACCGTG |
| 9962 | IGHG4 | CTTCGTGCCCAAGCTGCTGG |
| 9963 | IGHG4 | CGTGAGCCAGGAAGACCCCG |
| 9964 | IGHG4 | CAGGGCGGCTGTGCTCTCGG |
| 9965 | IGHG4 | ACCAAGGTGGACAAGAGAGT |
| 9966 | IGKV1-33 | TGGGACCCCTGTTTCCAAAT |
| 9967 | IGKV1-33 | TGCTAATGTCCTGACTCGCC |
| 9968 | IGKV1-33 | GCTGCTCTGGCTCTCAGGTA |
| 9969 | IGKV1-33 | CATCGTAGATCAGGAGCTTA |
| 9970 | IGKV1-33 | CATCACTTGCCAGGCGAGTC |
| 9971 | IGKV1-33 | ATCGTAGATCAGGAGCTTAG |
| 9972 | INTS6P1 | GTTGTAAACAATCATATCGG |
| 9973 | INTS6P1 | GGCATAGACAACTATGGGCA |
| 9974 | INTS6P1 | CCTTATTCAGCAAAGCAACG |
| 9975 | INTS6P1 | CCAGCCTTGATAGCACAGGG |
| 9976 | INTS6P1 | AGCCGTCTGGTGTGATTGCA |
| 9977 | INTS6P1 | AAGGGCCCGAGATAGTAGGG |
| 9978 | ISX-AS1 | TGTTCACAGATCCTAGCACC |
| 9979 | ISX-AS1 | TCAACACAGAAACATAGGCA |
| 9980 | ISX-AS1 | TAGAGACACGTTGTTAGGGA |
| 9981 | ISX-AS1 | GGTTAGCTTCACTTTACCAG |
| 9982 | ISX-AS1 | CCAGGCTGAGGTCATGACTG |
| 9983 | ISX-AS1 | AGGTCCCAACCTTAAACCCG |
| 9984 | ITGA9-AS1 | TTAGACTCTAGTATCAAACA |
| 9985 | ITGA9-AS1 | TGAGCCAGACAGCTTATGGG |
| 9986 | ITGA9-AS1 | GCGAAACCGTGGATAAGCAG |
| 9987 | ITGA9-AS1 | GCCCTCCACTCACCCTGTGT |
| 9988 | ITGA9-AS1 | CCACCAGGCGAGCAGGCGAG |
| 9989 | ITGA9-AS1 | ATTAATTTACAAACTGACAG |
| 9990 | ITIH4-AS1 | GGAGCATCCAGAATAACGTG |
| 9991 | ITIH4-AS1 | CTCCAGGACGTGCTGCACAG |
| 9992 | ITIH4-AS1 | CACCGATGGCGACCCCACTG |
| 9993 | ITIH4-AS1 | AGGAACACGCACTCTCAAGG |

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|---|---|---|
| 9994 | ITIH4-AS1 | AACCTGACAACCATCAAAAG |
| 9995 | ITIH4-AS1 | AAAGGGAAGTATAATAACAA |
| 9996 | ITPR1-DT | TCACTATTTACCAGTTACAC |
| 9997 | ITPR1-DT | GGTCAAGGATTAAAGGCGCG |
| 9998 | ITPR1-DT | GGATTATCCATACATACAGG |
| 9999 | ITPR1-DT | GAGACCACAAATTTCACTGA |
| 10000 | ITPR1-DT | ATAGTGATTACATGTTGAAG |
| 10001 | ITPR1-DT | AGCCGTTCAAAGTCACCCCT |
| 10002 | JADE1 | TGCGGGTCACCATGTAAGTG |
| 10003 | JADE1 | GATGTCCACATAGCCCAACT |
| 10004 | JADE1 | CTTCATCATATTCGATCCCC |
| 10005 | JADE1 | CTCATCCGGATTCAGCTGGT |
| 10006 | JADE1 | CCACCCGTAGCGGAACCAAG |
| 10007 | JADE1 | CAGCTCACATAGGAAACCCG |
| 10008 | KDF1 | GTCTACTGAGGACTCCACTG |
| 10009 | KDF1 | GCGGCCAACAGAGCTATGTC |
| 10010 | KDF1 | CCCTCGGGTAGGGATACACA |
| 10011 | KDF1 | ATGGAAAGAATAGTACTCCT |
| 10012 | KDF1 | ATCAATTTCTCGGCTCGACA |
| 10013 | KDF1 | AGGTAATGCTCTCTGGCCCA |
| 10014 | KHDC4 | GCTGGAGACAACTGAGCGAT |
| 10015 | KHDC4 | CTGCAGTATCAACTCGAGGG |
| 10016 | KHDC4 | CCTAACTAGCAATAAAAGCA |
| 10017 | KHDC4 | CAGGTGCCAAAGTCTTCCTG |
| 10018 | KHDC4 | AGGGACACTACTTATAGCAG |
| 10019 | KHDC4 | ACTATGCTTGGTACTCCGTA |
| 10020 | KIF1BP | GAATGCCCAACTCTCCATGC |
| 10021 | KIF1BP | CGCTCAGTAGGATCAAGAGG |
| 10022 | KIF1BP | CCGTCGCCCAGCGAGCGGTG |
| 10023 | KIF1BP | CAAGTCCAAATACAGCGCCC |
| 10024 | KIF1BP | ATTGATGTAAAACTGTGACA |
| 10025 | KIF1BP | AGAATAACCTGGGTATCTTG |
| 10026 | KIF9-AS1 | TGTAGAAAACTGTTACACGC |
| 10027 | KIF9-AS1 | GTCAGTCGCCAGCTGTGACA |
| 10028 | KIF9-AS1 | GAGCCATACTCGTTGCAAGG |
| 10029 | KIF9-AS1 | CGCGTTACCTCAGAGCCCAG |
| 10030 | KIF9-AS1 | CAAGCACTGTCACTTCAGCA |
| 10031 | KIF9-AS1 | ACAGGGTTGTGATTTAGCGA |
| 10032 | KRT17P5 | TGGCTGTGCCATGACCCTCG |
| 10033 | KRT17P5 | TCCTTCTGGACGTGAAGACG |
| 10034 | KRT17P5 | GGGCTCCTAGAAGACCAGAG |
| 10035 | KRT17P5 | GAGGAATTCAACCTGCTCTG |
| 10036 | KRT17P5 | CCAGGGCTGGTTCTTCAGCG |
| 10037 | KRT17P5 | AGAGGGGCTGAACTGCAAGG |
| 10038 | KRT87P | GTTCGCGGCCTTCATGGACA |
| 10039 | KRT87P | GTCCATCTTGACGACCACTG |
| 10040 | KRT87P | GGCTGCCGAAGCCTCCGGTG |
| 10041 | KRT87P | GAGTGCATGGAAGCCAACAG |
| 10042 | KRT87P | CCTGCGCAAATCAGACCTAG |

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|---|---|---|
| 10043 | KRT87P | ACACGGTGGCGATGCATGGG |
| 10044 | KRT8P36 | TGCCTTCATCGAGAAAGATG |
| 10045 | KRT8P36 | TCTGCATCTCAGACTCCAGC |
| 10046 | KRT8P36 | GGTCACCCTGATGAACATGG |
| 10047 | KRT8P36 | CCAGATCTCGGACACGCCTG |
| 10048 | KRT8P36 | CAGTAAACTCCCCCGCAGGT |
| 10049 | KRT8P36 | AGAAGATAGAGACTTGCGAT |
| 10050 | LAMC1-AS1 | TTTCTGGCAGCAGTGAACGA |
| 10051 | LAMC1-AS1 | TTGCCCTAAGTAGAACACTG |
| 10052 | LAMC1-AS1 | TGAAGATATATTGCCAGCTA |
| 10053 | LAMC1-AS1 | TAATGACATACACGAACTTG |
| 10054 | LAMC1-AS1 | GATGAAAATGACCCACACTG |
| 10055 | LAMC1-AS1 | CCGTGATTGCTACACCCAAC |
| 10056 | LRRC69 | TTGCTAGCCAGAAACAACAT |
| 10057 | LRRC69 | TAATATTTCCAGCTATGTCT |
| 10058 | LRRC69 | GTTTCAGGATCTGAAGCTGA |
| 10059 | LRRC69 | GATTGTTGTTCAGATTAAGC |
| 10060 | LRRC69 | AGAGTTATGCAACTTGACCC |
| 10061 | LRRC69 | ACAAAGTTCTCTAGGAATGC |
| 10062 | LRRC74B | TGGGCTTGGAGAACTGGTCA |
| 10063 | LRRC74B | GGCCTGTGGGCGTCTTTCAG |
| 10064 | LRRC74B | GAGCTGAACCTCCGGCACCG |
| 10065 | LRRC74B | CAATCCATATGTCAAGCGGC |
| 10066 | LRRC74B | ATTCCAGCTCACGTTAAGCT |
| 10067 | LRRC74B | AAAGCAGCAGCATCCATGGT |
| 10068 | LUARIS | TTGTATCATGACCCTCCATG |
| 10069 | LUARIS | TGAAGAAAATCTCATCACCG |
| 10070 | LUARIS | GCACTGTCAAGCCCTCATCA |
| 10071 | LUARIS | GAGTGAGTGAGTACACATCG |
| 10072 | LUARIS | GAGCTTAACGAGCCACTCAG |
| 10073 | LUARIS | ACGCTAAGATCAGTAGACAT |
| 10074 | MACROH2A1 | TCCTTGTCTAGGAAACACGC |
| 10075 | MACROH2A1 | GCAGCGAGAGACAACAAGAA |
| 10076 | MACROH2A1 | GAGTTGCTAGCGAAGAAGCG |
| 10077 | MACROH2A1 | CAGGAGTCATCTTTCCCGTG |
| 10078 | MACROH2A1 | AGGACGGCGGCCATGTACAC |
| 10079 | MACROH2A1 | AGCGCCGACAGCACAACCGA |
| 10080 | MACROH2A2 | TGCCAGCAAGATGTGTCTCG |
| 10081 | MACROH2A2 | TATTGGCTCCATGAGAGTGG |
| 10082 | MACROH2A2 | GTTCAAGTACCGGATCAGCG |
| 10083 | MACROH2A2 | GCCAAAAAGCGAGGGACCAA |
| 10084 | MACROH2A2 | CCACGGACGTCCAAAAAGGT |
| 10085 | MACROH2A2 | AAAGGAGTGACCATCGCCAG |
| 10086 | MAFA-AS1 | TTCCACGGTTGATTTCCTAG |
| 10087 | MAFA-AS1 | GTTCTGTGAAGCAGTCACCA |
| 10088 | MAFA-AS1 | CGAGAGAAACAAGCTTGGAG |
| 10089 | MAFA-AS1 | CCTCCTGACCACCAGAACAC |
| 10090 | MAFA-AS1 | CCAGCACAGGAATCCGACGG |
| 10091 | MAFA-AS1 | ATATTGATGGAGCACCTCCT |

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|---|---|---|
| 10092 | MAFG-DT | TGCACAAGTACCATGGACAG |
| 10093 | MAFG-DT | TCCACGACCGGCTTTAAGTG |
| 10094 | MAFG-DT | TCCAACCAAGAAACTGCGGC |
| 10095 | MAFG-DT | GTGCCAGCCCTCACTGACCA |
| 10096 | MAFG-DT | GCCCCGCGATTCCAACTCGG |
| 10097 | MAFG-DT | ACTCGGGAGGAAGATAAACG |
| 10098 | MAP3K15 | TGATCGGCCAAATCACACGT |
| 10099 | MAP3K15 | GGCAGATGGGAATTACCATG |
| 10100 | MAP3K15 | GCTGAGGGTTTACCACTCAA |
| 10101 | MAP3K15 | GCACCTGAGATAATTGACCA |
| 10102 | MAP3K15 | ATGGTGAGAGAGTTGTCTTG |
| 10103 | MAP3K15 | AGTCCGAGAAAGCTTTGACA |
| 10104 | MAP3K20 | TGTATGGTTATGGAACCGAG |
| 10105 | MAP3K20 | TGCATGGACGGAAGACGATG |
| 10106 | MAP3K20 | TCCTACACAACAAGGCGGAG |
| 10107 | MAP3K20 | GTGACAATGCCATAGTTGGG |
| 10108 | MAP3K20 | GCTTGTAGTGGAAAAAAACG |
| 10109 | MAP3K20 | CAACACTAACCTACCTGATG |
| 10110 | MAPT-IT1 | TGACACCCCAGAATCAACCG |
| 10111 | MAPT-IT1 | TATTAATAAAAATACACCCA |
| 10112 | MAPT-IT1 | GTGCGTACCAGGTTCATCAC |
| 10113 | MAPT-IT1 | GGAGCGAAATCGCAGAAGCG |
| 10114 | MAPT-IT1 | GGACGCTGGCTACCCATCCG |
| 10115 | MAPT-IT1 | ACAAATAAAAACAGCCGTAG |
| 10116 | MATN1-AS1 | TCTGCAGCTCTGCTAATGAG |
| 10117 | MATN1-AS1 | TCCTTGTCCCGGTAAGACCG |
| 10118 | MATN1-AS1 | CACTGAACCACACTGCCCAG |
| 10119 | MATN1-AS1 | CACAAATGCAACATCAGCCG |
| 10120 | MATN1-AS1 | ACCACCTGCGACACGCGGGG |
| 10121 | MATN1-AS1 | AACCACCCAGGGTCACACAA |
| 10122 | MGAT4EP | TATGCACTTCTATGTTCACA |
| 10123 | MGAT4EP | GTGTAGTTTCCCAGTCACGG |
| 10124 | MGAT4EP | GGTCACCCTTGAATGAATGT |
| 10125 | MGAT4EP | GGCCAGTTATAACAGCCGGA |
| 10126 | MGAT4EP | CTCCCAGGGGAAATGCACAT |
| 10127 | MGAT4EP | AGTCTATATGAGTGACATAG |
| 10128 | MIGA1 | TTCAGCCTGTCTATTGCGAA |
| 10129 | MIGA1 | GTTTGTAACTATGCTAATGG |
| 10130 | MIGA1 | GGAGTTTGAAGCTACCCTTG |
| 10131 | MIGA1 | CATCACTTTAAAAGAAAACG |
| 10132 | MIGA1 | AGGATATTCCTCGCTGAGAG |
| 10133 | MIGA1 | ACTGAAATGTTGGAGTGCCT |
| 10134 | MINDY2 | TGTGATACACAGATTGTCCC |
| 10135 | MINDY2 | TAGCTGCGAGTTCAATAGTG |
| 10136 | MINDY2 | GAGGGTCTACTAACCACCCA |
| 10137 | MINDY2 | CAAGCAGAACTGACCGCCGC |
| 10138 | MINDY2 | AGGCCAGGAGCAAAACATTG |
| 10139 | MINDY2 | ACCTTGTACTGCCCTCTCAG |
| 10140 | MIR1281 | TCCTCCCGGTGCCCCCTCCC |

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|---|---|---|
| 10141 | MIR1281 | GGGCGAAAAGGGGGGAGAGG |
| 10142 | MIR1281 | GGAGGCGGGGGCGAAAAGGG |
| 10143 | MIR1281 | GCCCGGGAGGGGGCACCGGG |
| 10144 | MIR1281 | CGGGGGCGAAAAGGGGGGAG |
| 10145 | MIR1281 | AAGAGACACTCACCTCCTCC |
| 10146 | MIR6778 | TCACCTGTGGAATGTCAGGG |
| 10147 | MIR6778 | GTGGGTGGAGCCAGTTCAAG |
| 10148 | MIR6778 | GTGGAGCCAGTTCAAGTGGG |
| 10149 | MIR6778 | CTGTGGAATGTCAGGGAGGC |
| 10150 | MIR6778 | CAAGTGGGAGGACAGGAGGC |
| 10151 | MIR6778 | AGTTCAAGTGGGAGGACAGG |
| 10152 | MIRLET7BHG | TTGGTGCCGATGGGACTCCG |
| 10153 | MIRLET7BHG | GAGACATCAGGAGCCCATCG |
| 10154 | MIRLET7BHG | CTGGGACAGAGTGTAGCATG |
| 10155 | MIRLET7BHG | CCTGTGACCTCCAAACGTCT |
| 10156 | MIRLET7BHG | AGTGACACGACCCCACGGGA |
| 10157 | MIRLET7BHG | ACGTTATAGAGCCCGACCTG |
| 10158 | MKRN9P | TGAGAGCGACTTGTTTCATG |
| 10159 | MKRN9P | TAGCAAAGGGGAACTAGACG |
| 10160 | MKRN9P | GGAGATTCGTGTGACATGTG |
| 10161 | MKRN9P | GACTATCCATGAGAGACTTG |
| 10162 | MKRN9P | CGTTCCAAGTGAGTACTGTG |
| 10163 | MKRN9P | AGTCACCATTCTGTCCCCAG |
| 10164 | MSNP1 | TGAGGGAGGTTCTAAGCTAG |
| 10165 | MSNP1 | TAAATAACTATAAACGGGAT |
| 10166 | MSNP1 | GTTAGAAGTTTGTCAAACAG |
| 10167 | MSNP1 | GAGACCTAAAACTCCTGGCA |
| 10168 | MSNP1 | ATGCTGTCCAGTCTAAGTAT |
| 10169 | MSNP1 | AAGGGAGGAGCGGTCCCTAG |
| 10170 | MT1DP | GTTATTTACAACTGGACGCA |
| 10171 | MT1DP | GGTGATGAAGGCTCTTGGCG |
| 10172 | MT1DP | GCACATTTGGCACAGCCCAT |
| 10173 | MT1DP | GACTGAGGCTGAAAACTGCC |
| 10174 | MT1DP | CCTCTCGCCTCAGAAATCGG |
| 10175 | MT1DP | CCACAGAATAGAACATCCCT |
| 10176 | MT1HL1 | GGAGGCTCCTACGCCTGCGC |
| 10177 | MT1HL1 | GCAGGCGTAGGAGCCTCCAG |
| 10178 | MT1HL1 | GCAGGAGCCGGCGCAGGCGT |
| 10179 | MT1HL1 | GCACACTTGGCACAGCCCAG |
| 10180 | MT1HL1 | CAGCGGCGCAGGAGCAGTTG |
| 10181 | MT1HL1 | AACTGCTCCTGCGCCGCTGG |
| 10182 | MT1XP1 | TTGGGGTCCATTTAGAGGCA |
| 10183 | MT1XP1 | TCTATTTACATCTGAGAGCA |
| 10184 | MT1XP1 | GAAAAAAAGATGTAGCAAAT |
| 10185 | MT1XP1 | CTGCATCTGCAAAGGGACGT |
| 10186 | MT1XP1 | ATAGAGCAACCTTATAAACC |
| 10187 | MT1XP1 | AGCAGGAGTTCCTGATCAAG |
| 10188 | MYCBP2 | TGGTCCTTAGCTAGAGACAG |
| 10189 | MYCBP2 | GGTTGACTGAGATATCCTTG |

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|---|---|---|
| 10190 | MYCBP2 | GCTTCAGCCAGATTCATATG |
| 10191 | MYCBP2 | AGTGAAAGGAACGTACACAA |
| 10192 | MYCBP2 | AGAGCTGTGGTGTTACAATG |
| 10193 | MYCBP2 | AATGTGCTAATAGACACACC |
| 10194 | MYOSLID | GGGCACATCCTAGAGCAAGG |
| 10195 | MYOSLID | CTGGGGAACAATACCTGTTG |
| 10196 | MYOSLID | CATTTGCCTGCATCTGAATG |
| 10197 | MYOSLID | CAAGTGATTAGTCCATAGTG |
| 10198 | MYOSLID | AGAATAGACACAGAGATGCA |
| 10199 | MYOSLID | ACAAACGACATAAAAGACAA |
| 10200 | NANOGNBP3 | GTGGGGTAGAACTAAATGAG |
| 10201 | NANOGNBP3 | GTGGGAAGAAGATCCCCCGA |
| 10202 | NANOGNBP3 | GAAAAAACATAAGAGATGTG |
| 10203 | NANOGNBP3 | ATTCTCTGAAAGGATAAACA |
| 10204 | NANOGNBP3 | ATAAACTCTCTTGTATTGTG |
| 10205 | NANOGNBP3 | AACGTCTTAGCCAGGCACAA |
| 10206 | NAP1L6P | GGGGAGTATGAAGGAATCGA |
| 10207 | NAP1L6P | GCTGATTAAGAAATATGACG |
| 10208 | NAP1L6P | CAACGACTACTTCACAAATG |
| 10209 | NAP1L6P | ACTGTATGAGCCCACGAAAG |
| 10210 | NAP1L6P | ACTCGGTACTTAACCACCAG |
| 10211 | NAP1L6P | AAAGCCAGTTGTTAACCTGG |
| 10212 | NDUFAF4P2 | TTTACCTGCACGGAAGACAC |
| 10213 | NDUFAF4P2 | GTAGAGGGGTAACCGGGAGT |
| 10214 | NDUFAF4P2 | GAGGAATTCAGATTGCCCAA |
| 10215 | NDUFAF4P2 | CTTGCGCGGCGTGAATCTGA |
| 10216 | NDUFAF4P2 | CAAAAGTAACAAAATAAGAG |
| 10217 | NDUFAF4P2 | AGAATTCTCAGTTTCGCCGG |
| 10218 | NDUFAF8 | GCTCATGTCGGCTAACGGAG |
| 10219 | NDUFAF8 | GCGCGCAGAAGTCCTTACTC |
| 10220 | NDUFAF8 | CTTACTCAGGCGGCCGCCCG |
| 10221 | NDUFAF8 | CGCGGAGGCGGCTTCGCACG |
| 10222 | NDUFAF8 | CCTCACCTCGGCCCCGCAGG |
| 10223 | NDUFAF8 | CACGCACCTGCCGTACGCCG |
| 10224 | NFE2L3P1 | TTCAAAAAGAGCAAATACTG |
| 10225 | NFE2L3P1 | TGTTAACTATTGGGGTAGCG |
| 10226 | NFE2L3P1 | CTTTAGCACTCCATTCATCA |
| 10227 | NFE2L3P1 | CATGATGGGAACTAGAGTCA |
| 10228 | NFE2L3P1 | AGAAATGGTTCTTGTGACTG |
| 10229 | NFE2L3P1 | AAATGAGAGACATCTGAATG |
| 10230 | NFE4 | TGTAGAGTCTTAAATGACCT |
| 10231 | NFE4 | GCTCTGCATCTGCTATACAA |
| 10232 | NFE4 | AGAAGACACCTACTCTGACT |
| 10233 | NFE4 | ACAGTCAGATCAGAATCAGT |
| 10234 | NFE4 | ACAAACACCATGATACAAGA |
| 10235 | NFE4 | AAGTGGGAGTACTGTCACTG |
| 10236 | NOS2P2 | TGCCTAGCTGAACTTGAATG |
| 10237 | NOS2P2 | GGTGTGACGGCACTTCCTGG |
| 10238 | NOS2P2 | GCTGCGGCACTCGAACACCG |

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|---|---|---|
| 10239 | NOS2P2 | GCCAGCACAGAACTTAACGA |
| 10240 | NOS2P2 | GAGGTGAGAAATAAGAAGTG |
| 10241 | NOS2P2 | CAGCCCTGCAAACATAGAGG |
| 10242 | NPIPB3 | GTCTTGAGATCATCCGCTGA |
| 10243 | NPIPB3 | GGGGCCGCTTCCACCCTGAG |
| 10244 | NPIPB3 | GGAGTGAGTAGACACTCGGG |
| 10245 | NPIPB3 | GAAGGGCATGATATGACGCT |
| 10246 | NPIPB3 | AGGGGAGTGAGTAGACACTC |
| 10247 | NPIPB3 | AGATTATCATCCGCTCAGGG |
| 10248 | NPIPB9 | TGGTCATGCGACAGGAACTG |
| 10249 | NPIPB9 | TGACCAGAGCCAGTTCACCA |
| 10250 | NPIPB9 | GTCATGCGACAGGAACTGTG |
| 10251 | NPIPB9 | GCTGTGAGGTAGAGCCAGTA |
| 10252 | NPIPB9 | GACACTCAGGAGGTGTCTTG |
| 10253 | NPIPB9 | AGCTGTGAGGTAGAGCCAGT |
| 10254 | NPY6R | TGGTATCCCCAAATATCCAG |
| 10255 | NPY6R | TCAAATACAGACACAGATCA |
| 10256 | NPY6R | GAGTTGGAATCATTGCACAG |
| 10257 | NPY6R | CCCACAGAGTTGCTTACACA |
| 10258 | NPY6R | CATCTTTGACTGGTATCATG |
| 10259 | NPY6R | AATCAGTGTGATGCCCCAGT |
| 10260 | NT5DC4 | TGAGTATGTAGAAACACTGC |
| 10261 | NT5DC4 | GTGTAGCGCAGGATCTCATG |
| 10262 | NT5DC4 | GATAGCCGGTGTCACAACTG |
| 10263 | NT5DC4 | GACATGGACTACACTCTGGC |
| 10264 | NT5DC4 | CCTTTGTCCCTTACTCCGAG |
| 10265 | NT5DC4 | CATGAATAACATCCACCAGT |
| 10266 | NTF6G | GTAGGATGGGTGCAACAACG |
| 10267 | NTF6G | GGAAAAGGGGACAATGTCAA |
| 10268 | NTF6G | GCCGATAACTCTGAAGAAGG |
| 10269 | NTF6G | GAGCACAACCAAGTCCACAG |
| 10270 | NTF6G | CTGGGGAGGAAGCAAATGAG |
| 10271 | NTF6G | CCCTAGACAGGACCACTTGG |
| 10272 | NUTF2P7 | TGGAGCATCACCCAGCCTCG |
| 10273 | NUTF2P7 | TGCATCATCAGCATGGCTGT |
| 10274 | NUTF2P7 | TCTGGTGGAAACCCATGATG |
| 10275 | NUTF2P7 | GCTAGACAAGTTCTCCACAA |
| 10276 | NUTF2P7 | CTAGACTAGTTGCTTCTGAC |
| 10277 | NUTF2P7 | AGGTCAACCGAAGTTGTGCA |
| 10278 | NXF4 | GATGCACAAGTCTACCACAT |
| 10279 | NXF4 | GACCGAAGGCAAGATCTCAG |
| 10280 | NXF4 | CTGTGTCCCTAACGCCTGAG |
| 10281 | NXF4 | CAGCCAAGGAATCCGAAAGG |
| 10282 | NXF4 | ATGGTACTGAGAACATCCCG |
| 10283 | NXF4 | AGAGACCTGACACATGTTAG |
| 10284 | OCIAD1-AS1 | GTCAAGGACTCTGCTAGACG |
| 10285 | OCIAD1-AS1 | GGAAGAAGATGAATAACACT |
| 10286 | OCIAD1-AS1 | GCAGAGTCCTTGACACCTAC |
| 10287 | OCIAD1-AS1 | GAGTTTAGGTTGATGATTGA |

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| 10288 | OCIAD1-AS1 | CAGGTGATATCCAGCAGAAA |
| 10289 | OCIAD1-AS1 | AATAAAGTTTATACATACGT |
| 10290 | OLA1P3 | TGCAAATTATATCATGTTTG |
| 10291 | OLA1P3 | TCTACGTATGTACTTCATCT |
| 10292 | OLA1P3 | CAAAGTAATGACCAATACAC |
| 10293 | OLA1P3 | ATCTGTATGAATCTGTTCCA |
| 10294 | OLA1P3 | AGATTAATCAAGTACACCAC |
| 10295 | OLA1P3 | ACAAAGCAGAAATTATACTG |
| 10296 | OR6W1P | GTAATCCATTCCTCGCCCCA |
| 10297 | OR6W1P | GAGAGGGTGAGCCCTTGACA |
| 10298 | OR6W1P | GAGAACTAATGGACACACAT |
| 10299 | OR6W1P | CTCCACATACCTCAACAAGG |
| 10300 | OR6W1P | CGCTACCCAACCATCACGAA |
| 10301 | OR6W1P | CATCCTATGTACCACAGTGG |
| 10302 | OSTN-AS1 | TTCACCACTAACAGTAGAGG |
| 10303 | OSTN-AS1 | GAAGCTCACATAAGAAAGGT |
| 10304 | OSTN-AS1 | CCATGATTGTAAGTTTAACG |
| 10305 | OSTN-AS1 | CATTTAAATAACTTATGGGC |
| 10306 | OSTN-AS1 | CACAACCTTGAATGGCATGT |
| 10307 | OSTN-AS1 | AAGAAGAAAAGGAGTTTCTC |
| 10308 | PAK5 | TTGGAATGAATAATCCAGAG |
| 10309 | PAK5 | GGCCAACTTTATCAAAATCG |
| 10310 | PAK5 | GGATGGGTGTGATGCATGAA |
| 10311 | PAK5 | GGAGGGGTGATGGTACAAGG |
| 10312 | PAK5 | GCATTTAAAACCCATCCCCA |
| 10313 | PAK5 | CGTGTAGTCAGCAGTAGTAT |
| 10314 | PAXX | TGGGCCTGGCAAAACGCGTG |
| 10315 | PAXX | GCAGGTGCTCCAAAGCTCCG |
| 10316 | PAXX | CGGCTGAGGACATCACCCCC |
| 10317 | PAXX | CAGTAGCACACGAAGCGGGG |
| 10318 | PAXX | AGGTCAAAGGCCAGTGCCGA |
| 10319 | PAXX | ACTAGAGGTTGAAGCCGCCG |
| 10320 | PCNPP3 | TCTGATAACCAGAAACTATG |
| 10321 | PCNPP3 | GCCTCCAAATACAATACTGT |
| 10322 | PCNPP3 | GAGAGGAGTATTGTATTGGG |
| 10323 | PCNPP3 | CAGCGAGCTGGAGCTACCGG |
| 10324 | PCNPP3 | CAAATCTAACAAGGTATATG |
| 10325 | PCNPP3 | ACTTGACACAAATCATAAGG |
| 10326 | PDXDC2P-NPIPB14P | TTTATCAAGAAGGGAAACAG |
| 10327 | PDXDC2P-NPIPB14P | GGAATAAGAAGACATTCGGG |
| 10328 | PDXDC2P-NPIPB14P | CTGTACTTTATGGAAACAGG |
| 10329 | PDXDC2P-NPIPB14P | CCAGCGTGGAAAGAGCTGCG |
| 10330 | PDXDC2P-NPIPB14P | ACCTTGAGAGAAACTGAATG |
| 10331 | PDXDC2P-NPIPB14P | ACAATAATGATAATTATCCA |
| 10332 | PGBD5 | GCTGAGGACGGACTCGCAGT |
| 10333 | PGBD5 | GAACCCCTTCTACAGCACCT |
| 10334 | PGBD5 | CCTCAAGTACTTCCACGTCG |
| 10335 | PGBD5 | CCGCGCTTCGAGGATACCGG |
| 10336 | PGBD5 | ACAGGATCCTCATCGATCAG |

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|---|---|---|
| 10337 | PGBD5 | AAGAACATTGTCTGACCCAG |
| 10338 | PIEZO2 | GTTTCCATAAACCACCATGA |
| 10339 | PIEZO2 | CTTGCATAGTAGTCATTGGG |
| 10340 | PIEZO2 | CTCCTATCGATCCTACAGAG |
| 10341 | PIEZO2 | AGTGGCAACCACTTACTGAC |
| 10342 | PIEZO2 | AAGTACTGGATCTACGTCTG |
| 10343 | PIEZO2 | AAGATGAAGAACCTCCACGA |
| 10344 | PIMREG | TTGAGGTTGACGGCTCTCAG |
| 10345 | PIMREG | TGTCAGTATTACCTGGGACA |
| 10346 | PIMREG | CTGGAGAGATCTCCGGCGCA |
| 10347 | PIMREG | AGCCATCAGGAGACCTCTGT |
| 10348 | PIMREG | ACCCCAGAGCCAGGTCAGCA |
| 10349 | PIMREG | AAGGCCAGGAGGCGGAAGAG |
| 10350 | PKD1P1 | GGAAGGAGCACCCAGAAGCA |
| 10351 | PKD1P1 | GCGCGTGACGATGGGCGTGA |
| 10352 | PKD1P1 | CCAGGGGCAGCTGGGCACGA |
| 10353 | PKD1P1 | CATGGCTTGGGGGCATGAAG |
| 10354 | PKD1P1 | ATGCGAGTGAAACAGCTCCG |
| 10355 | PKD1P1 | AGGCAGCAAGAGCCCCCCAG |
| 10356 | PKD1P6-NPIPP1 | GGGACATCCAGAAGAGAAAG |
| 10357 | PKD1P6-NPIPP1 | CTGGTGGCTGAGCTGCAGTG |
| 10358 | PKD1P6-NPIPP1 | CACGTCACTGAGGTTAGCCG |
| 10359 | PKD1P6-NPIPP1 | CAACGGAGTTGGCAGAGCTG |
| 10360 | PKD1P6-NPIPP1 | ATGGAGACAGGTGGAAACCA |
| 10361 | PKD1P6-NPIPP1 | ATCCGAGTGTGGCACGACAA |
| 10362 | PLPBP | TTGCTGACCGCCACTAGCCG |
| 10363 | PLPBP | TTCAGAGACCATAGCCATCG |
| 10364 | PLPBP | TGGGAGTCGGGTGCGCATTG |
| 10365 | PLPBP | TGATCGAGGCCTATGGACAT |
| 10366 | PLPBP | GGACACAAAGACAGAATCTG |
| 10367 | PLPBP | ATGGTCCAGATTAACACCAG |
| 10368 | PLPP3 | GTCCCGGAGAGCAAGAACGG |
| 10369 | PLPP3 | GATGGCAATGACGATCCCCA |
| 10370 | PLPP3 | GACGATTCAGAACCCCTACG |
| 10371 | PLPP3 | CAGGCGCCCTATGGACACTT |
| 10372 | PLPP3 | ACCATCAAGCCTTACCACCG |
| 10373 | PLPP3 | ACAGCAAAGTCCAGGAAGCC |
| 10374 | POLR1H | TTTCTGTTCAGATTGCGGCT |
| 10375 | POLR1H | GGCTTCAACATCAACGTTCG |
| 10376 | POLR1H | AGGGCAGCGCCTGTCAACCT |
| 10377 | POLR1H | AGCTGGAGCAAGTATTGGCG |
| 10378 | POLR1H | AGCCATGCCTATGTCGGTGG |
| 10379 | POLR1H | ACGGTCACCTGTATTCGCTG |
| 10380 | PRAG1 | TGGAGTTTGAATGGTCCGTG |
| 10381 | PRAG1 | TGCTCAGGTAGATCGTCCGA |
| 10382 | PRAG1 | GCAATGTTCCTCTCGCCGCG |
| 10383 | PRAG1 | GATTTGGAAAAAGTGAGCCA |
| 10384 | PRAG1 | CAGCCCAAGGCATCTGCTAG |
| 10385 | PRAG1 | AGCTAAAGTGAGATTCGTCG |

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|---|---|---|
| 10386 | PRMT5-AS1 | TGTGGGGGTACTGATTTGAA |
| 10387 | PRMT5-AS1 | GACTTCAAACTGTAACCCTG |
| 10388 | PRMT5-AS1 | CCAAGCACCGAGGTCAGGAG |
| 10389 | PRMT5-AS1 | ATTTGCTGAAGGAGTCACGT |
| 10390 | PRMT5-AS1 | ATGTAGCTGGTTATAACATG |
| 10391 | PRMT5-AS1 | AACATGCCTGGGTCTAAGTG |
| 10392 | PROX1-AS1 | TTTGGGCCTCAGATTTCCAA |
| 10393 | PROX1-AS1 | TTAGATAAGACACCTTCACT |
| 10394 | PROX1-AS1 | GTGGTCTCAATCCATGCCTG |
| 10395 | PROX1-AS1 | GCAACTGGTGGATATGCCGG |
| 10396 | PROX1-AS1 | ATGGTTAGGAGACTGTTCTG |
| 10397 | PROX1-AS1 | AGAAACTGTCAGACCAACAG |
| 10398 | PRXL2C | GTCATCCTACCATCATATTG |
| 10399 | PRXL2C | GACATGTTATGTCTTACCTG |
| 10400 | PRXL2C | CGCGGGCAGCGGGTACCGTT |
| 10401 | PRXL2C | CATCTGCAAGGAATACGTAG |
| 10402 | PRXL2C | CACCCGCACGAACACCACCA |
| 10403 | PRXL2C | AGGGTGACATTTGCTTCCTT |
| 10404 | PSME2P6 | TAAATGATCTATATGTTGTG |
| 10405 | PSME2P6 | GAGAAAACTGTCCACCCAAA |
| 10406 | PSME2P6 | GAATGCCATCAAGACCAAAG |
| 10407 | PSME2P6 | CTCGCTCATGCACCAAGACC |
| 10408 | PSME2P6 | CAAGTATTTCTCAGAACGTG |
| 10409 | PSME2P6 | AGCAATCCAGGATAAGGTGT |
| 10410 | PTBP1P | TCTTCCTCGGATACTGAGGG |
| 10411 | PTBP1P | TCCCATCGACGTCATCGAAG |
| 10412 | PTBP1P | GCTGATCCAAATGCGCTCCG |
| 10413 | PTBP1P | GATACGGATGAGATGCGGAT |
| 10414 | PTBP1P | CATGGTGAATTACTACACCT |
| 10415 | PTBP1P | CACACACAGCAGACCCGTGG |
| 10416 | PTPRVP | TGGAGCTGAAGGTCCTAGCG |
| 10417 | PTPRVP | TCACTCGTCACATTTACCAG |
| 10418 | PTPRVP | GGTCTGCATTAGGCGAGGAG |
| 10419 | PTPRVP | CTCTAGTAATAAGCAGACGA |
| 10420 | PTPRVP | CAGTCCATGGACAGTTGACG |
| 10421 | PTPRVP | AAGCAGTACCACGCGCTGAG |
| 10422 | RASAL2-AS1 | TGTATACCTATGTAACATGG |
| 10423 | RASAL2-AS1 | TCGTTACTCGAGTGCACACG |
| 10424 | RASAL2-AS1 | TAAAAAAGCAGGATTACTGG |
| 10425 | RASAL2-AS1 | GGGATTCTGGGATATGCACA |
| 10426 | RASAL2-AS1 | GATCTACTATGTCCAAGGCA |
| 10427 | RASAL2-AS1 | CCAGTCTCTTTGTGCAACGT |
| 10428 | RBAKDN | TTTGGGTGAGGCGTTAACAG |
| 10429 | RBAKDN | GTCCGGATCTAACAATCCCT |
| 10430 | RBAKDN | GGTTCCGTGAGAGGCGTCCA |
| 10431 | RBAKDN | GCCACGCGACCAGAAAGCCG |
| 10432 | RBAKDN | CGTCCCCTGCCAATGCGTTG |
| 10433 | RBAKDN | ATCAATACAGCCAGAGCCCG |
| 10434 | REC114 | TTGAGCCTCGGGCTTACCGG |

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|---|---|---|
| 10435 | REC114 | GTTGAAGATTGTAAGACGCG |
| 10436 | REC114 | GAAATGACCTGATATAACTA |
| 10437 | REC114 | CCCAGGGCAACTGAAAGTCA |
| 10438 | REC114 | CAAGGACAGACACTACTGGT |
| 10439 | REC114 | CAAACACCAGAGACCCACCT |
| 10440 | RETREG2 | GCCAGGTATCTGCACAACTC |
| 10441 | RETREG2 | GAGGCTTCTATCTTGGAGAG |
| 10442 | RETREG2 | CTTGTCGTGTTTGTGATGCA |
| 10443 | RETREG2 | CAGCTCATGATAAACCACCA |
| 10444 | RETREG2 | AGAGACAGAGAGTGAAAGCG |
| 10445 | RETREG2 | AACACTCACCTGAAACGTCA |
| 10446 | RPL22P19 | TCAAAATGAACGGAAAAGCT |
| 10447 | RPL22P19 | GGGCAGCTTGGATGTCACGC |
| 10448 | RPL22P19 | GGCGCCCATGAAAAAGCTTG |
| 10449 | RPL22P19 | GAGGGGTAGTGACCATCGAA |
| 10450 | RPL22P19 | CCAAATTAACCAGGACGAAG |
| 10451 | RPL22P19 | AGGGCTAAAAAAAAGGAAGC |
| 10452 | RPL22P3 | TGGTCGCCATCCCTCCACCA |
| 10453 | RPL22P3 | TGCACTCACCCCGTAGAAGA |
| 10454 | RPL22P3 | TGAAGAATAATTTACGTGAT |
| 10455 | RPL22P3 | GGCTTCTGTGAAAAAGCCTG |
| 10456 | RPL22P3 | CCAGATTAACCAGGACAAAG |
| 10457 | RPL22P3 | CAAGATCAACGTGACATCCG |
| 10458 | RPL23P2 | TTTATTCCGAAGATAATGCA |
| 10459 | RPL23P2 | TTAGACAACCAAAGTCATAC |
| 10460 | RPL23P2 | TGATCAACTGCTGACAACAC |
| 10461 | RPL23P2 | GCGTTCAAGATGTCAAAGCG |
| 10462 | RPL23P2 | CGAGCATTGGACACAATCCA |
| 10463 | RPL23P2 | AAAAATGGTACATCCAGCAG |
| 10464 | RSRP1 | TTCGCTTAAGTGAAAAAGGT |
| 10465 | RSRP1 | GGTTCACCAGGAGATACTAC |
| 10466 | RSRP1 | GGAAGTACAGGCGCTACTCG |
| 10467 | RSRP1 | AGGGCGTACGCGATCGCGCG |
| 10468 | RSRP1 | AGGATTCGCCCTCGACCTCG |
| 10469 | RSRP1 | ACCAATGCAGCGAAAGCTCT |
| 10470 | RTL4 | TGGTACAGGCATCACTGTGG |
| 10471 | RTL4 | TCAAATGCAGCATCCAACCA |
| 10472 | RTL4 | TCAAACTTAGCATTCATCAG |
| 10473 | RTL4 | GGCACTAGCTGATCCCAACC |
| 10474 | RTL4 | GGAACTCTGAGCAATTGGCA |
| 10475 | RTL4 | AAAGTTGTGGGATCATATCT |
| 10476 | SACS-AS1 | TGCCACAATCGACTGCCCGT |
| 10477 | SACS-AS1 | GGTGACAAAGTGAATTGCAC |
| 10478 | SACS-AS1 | GCAGCACACTATGCCAACAC |
| 10479 | SACS-AS1 | GAGGAGATAGAGTATTCGTG |
| 10480 | SACS-AS1 | GAGCCAGCTAGTGGCACCCA |
| 10481 | SACS-AS1 | AAGGCCAAGAGGTCACTGCG |
| 10482 | SCARNA8 | GTAAAGTCTTCATAATTGGG |
| 10483 | SCARNA8 | GGGAGGCTGATACACAAATT |

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|---|---|---|
| 10484 | SCARNA8 | CGATTTCACTCAATTCGTCC |
| 10485 | SCARNA8 | CGAATTGAGTGAAATCGTAA |
| 10486 | SCARNA8 | AATCGTAACGGACAGATACG |
| 10487 | SCARNA8 | AAAGGCAGTTTATTCTAGGG |
| 10488 | SCHLAP1 | TCTACTCTACTCTAGCCAAG |
| 10489 | SCHLAP1 | TAGCAGATTTCAGCTCACAC |
| 10490 | SCHLAP1 | GGTCACAAAGTCCTTCATAG |
| 10491 | SCHLAP1 | GCACTGGGACCAGTTAGCAG |
| 10492 | SCHLAP1 | CAGCTCTTAAGGCGGCGCGT |
| 10493 | SCHLAP1 | ATGATGAGAATGGAATGACT |
| 10494 | SELENOKP3 | TGTTATCAAAGATAAACTCC |
| 10495 | SELENOKP3 | TGGGGAACAGCACTGCATGA |
| 10496 | SELENOKP3 | TCTGATTCCAGATATGATCA |
| 10497 | SELENOKP3 | CTGCAAGTTGCTCCGAAGTG |
| 10498 | SELENOKP3 | ATCTAAACAAGGATTGCTCT |
| 10499 | SELENOKP3 | ACACAAGTTCGAATCATCTT |
| 10500 | SEMA5A-AS1 | TTATTTACATCCTATCCCAA |
| 10501 | SEMA5A-AS1 | GAGAAGAAAGTAAACACTCA |
| 10502 | SEMA5A-AS1 | CAGCGTCTTCTGGGACACAG |
| 10503 | SEMA5A-AS1 | ACTGTCGTGTCTCTTCACAC |
| 10504 | SEMA5A-AS1 | AACACAGAAAACTAACATAG |
| 10505 | SEMA5A-AS1 | AAACATGTCCAGTCCGGAGT |
| 10506 | SEPT7P2 | GCCGCCGCACATAAACTGCG |
| 10507 | SEPT7P2 | GCAGGAGACCGCCACTCACG |
| 10508 | SEPT7P2 | GCAGATAGCCCGTCACAATG |
| 10509 | SEPT7P2 | CATATAACAACCATCATGAG |
| 10510 | SEPT7P2 | AGCAGGCTAGAGCCGCAGGG |
| 10511 | SEPT7P2 | AGCAGACACACTCATGCCAG |
| 10512 | SERBP1P5 | TTGAACAGAAGGGTTCACGA |
| 10513 | SERBP1P5 | TCAACCACGCCAACGCTGCG |
| 10514 | SERBP1P5 | GTGACTGACGAAACACCTGA |
| 10515 | SERBP1P5 | GAGTGAAGAGGCTTATGCTG |
| 10516 | SERBP1P5 | CGGCCCGCTGCAATCCGTAG |
| 10517 | SERBP1P5 | ATATTCACACATGATCAACT |
| 10518 | SETSIP | TCTGGGACTGGAGGAGACAT |
| 10519 | SETSIP | GCAGTGAAGACACTTGTGGA |
| 10520 | SETSIP | CAAAGTCCACCAAAATCAAA |
| 10521 | SETSIP | AGTGTCTTCACTGCTTGGGG |
| 10522 | SETSIP | ACTTAATGAACAAGACAGTG |
| 10523 | SETSIP | AAACGCAGAATAAAGCCAGC |
| 10524 | SLC22A20P | TGGTGGACGGGAAAACACTG |
| 10525 | SLC22A20P | TGCAGGTAGGACCAGACCAG |
| 10526 | SLC22A20P | GGTGCTGTATTCCCCAAGTG |
| 10527 | SLC22A20P | GGGCATCCACTCCACAACTG |
| 10528 | SLC22A20P | GCGGCCCACGTAAATCATGG |
| 10529 | SLC22A20P | GCCTCTCTACATAAAGCCGG |
| 10530 | SLC39A12-AS1 | TGGAAGCCATCCCCTATCTG |
| 10531 | SLC39A12-AS1 | TCACCCTCACCTCCAACCGT |
| 10532 | SLC39A12-AS1 | TAAAGATTGTATCTACAGAG |

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|---|---|---|
| 10533 | SLC39A12-AS1 | GATGTTTCAAGCCCCGTTCA |
| 10534 | SLC39A12-AS1 | ATAGTGCGTTACTTTAGCAA |
| 10535 | SLC39A12-AS1 | AGAGGGCAAGCGTTTCCTAG |
| 10536 | SMIM10L2A | GTCTGCAGCGGCGGCTGCGG |
| 10537 | SMIM10L2A | GTCGGCGGCTCTGTCTGCAG |
| 10538 | SMIM10L2A | GCTGCGGCCCGAGGCTCGTA |
| 10539 | SMIM10L2A | GCGGCTGTCGCGCTCAGCTG |
| 10540 | SMIM10L2A | CGTACGGCGCCTTCTGCAAG |
| 10541 | SMIM10L2A | CCGCACCGCCAGGCCAGACA |
| 10542 | SMIM10L2B | GGTTCGGCTGTCGCGCTCGG |
| 10543 | SMIM10L2B | GGCGTCGGCGGCTCTGTCTG |
| 10544 | SMIM10L2B | GCTGCTCACCTTCTTCGACC |
| 10545 | SMIM10L2B | CTCATACGGCGCCTTCTGCA |
| 10546 | SMIM10L2B | CCGAACCGCCAAGCCAGACA |
| 10547 | SMIM10L2B | AGAAGGCGCCGTATGAGCCT |
| 10548 | SMIM24 | GTTTCTGCTCCTCTCCCCGG |
| 10549 | SMIM24 | GGAGGAGACCACGTTCAGAA |
| 10550 | SMIM24 | CGGAGCATCGCCTGAAGCCG |
| 10551 | SMIM24 | CCAACCTATACCAGGACCAG |
| 10552 | SMIM24 | AGACCAAATAGACGATGAAC |
| 10553 | SMIM24 | ACCTGGCCTTGGAACACCAG |
| 10554 | SMTNL1 | TGGATTAGATGAGGTCAAAG |
| 10555 | SMTNL1 | TGAACCTAAGGCAACAGTTG |
| 10556 | SMTNL1 | GTGGCCTGAGAGCCCCACTG |
| 10557 | SMTNL1 | GGCCAAGGCTGAATCGCAGA |
| 10558 | SMTNL1 | CTGGAAAGGCCATCAATGAG |
| 10559 | SMTNL1 | CATCTCCTGAGAACCCACAG |
| 10560 | SNHG1 | TAAGGTGTATAAAAAATGGT |
| 10561 | SNHG1 | TAAGACATTAGGTCAACTCA |
| 10562 | SNHG1 | GGAGACCTAAAGGCTCATGA |
| 10563 | SNHG1 | GAAGGACAAAATGGCGATGG |
| 10564 | SNHG1 | CTTCAAAAAAGGTTCCCTTG |
| 10565 | SNHG1 | AGGTCAGTAGTTTACGAAAG |
| 10566 | SNHG10 | TGGACTACGCCGAGACAACT |
| 10567 | SNHG10 | GTTGGGCCTAGGATCAGGAA |
| 10568 | SNHG10 | GAGAAATAATCGCGCGCCGG |
| 10569 | SNHG10 | CTAGGACGATGCTTGGAACG |
| 10570 | SNHG10 | CGGCCGCATGCAGTTCGTCG |
| 10571 | SNHG10 | ACTGCCTTACTATTGGTCGT |
| 10572 | SNHG12 | TTGTCCACAGAGCGTACACA |
| 10573 | SNHG12 | GTTTCTACCTAAAATGACCG |
| 10574 | SNHG12 | GCAAAACATTGCGCTATGTG |
| 10575 | SNHG12 | CATCCCAGAGACAACTCCAG |
| 10576 | SNHG12 | AGGGGGTCATACTCCCCGAA |
| 10577 | SNHG12 | AAGACTCTTAAGATGACAGA |
| 10578 | SNHG15 | TCCGTACTTCGTAGTCGCAG |
| 10579 | SNHG15 | GGGACTACGCGGTGACGTCG |
| 10580 | SNHG15 | GGAATGGTCAGGCAACACGT |
| 10581 | SNHG15 | GCTGTAGAAACACTGACGGA |

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|---|---|---|
| 10582 | SNHG15 | CTTGAACATGAGACTCAAGG |
| 10583 | SNHG15 | CTCTGCAACGTGATTTACCG |
| 10584 | SNHG28 | GACCTTGGGCTAACACACTG |
| 10585 | SNHG28 | CTGAGGGAAGTCTACACCAG |
| 10586 | SNHG28 | ATGGTCCTCATATCTCCCAT |
| 10587 | SNHG28 | AGTTTATGGACAAGGTGTGG |
| 10588 | SNHG28 | AGGAAAATAAAGTGAAAACG |
| 10589 | SNHG28 | ACGGTGCCCATCTCAACCAT |
| 10590 | SNHG4 | CTACCCTTAAGAGATGGGAT |
| 10591 | SNHG4 | CCGAGGGGAACCCCGCCCCG |
| 10592 | SNHG4 | AGAGAATCTGTGTGTCCTAG |
| 10593 | SNHG4 | AATTACTATAGCTCAGATGG |
| 10594 | SNHG4 | AAAGGCGCCACGCTCGTGAG |
| 10595 | SNHG4 | AAAAAAAAATGCGAGTGCGG |
| 10596 | SNHG8 | TGCACGGAACCTTTCCCCGA |
| 10597 | SNHG8 | TCAGGATATTGGTAGGTCGG |
| 10598 | SNHG8 | GCTCAAACTGACGGTTCTCG |
| 10599 | SNHG8 | CTTTCACATTCGGGAAGCGT |
| 10600 | SNHG8 | CTTAAGTTTACAAGCATGCG |
| 10601 | SNHG8 | CTGAGCTGAACACATTACGA |
| 10602 | SNORA11 | TTGGGGGACGTTTGTTCATA |
| 10603 | SNORA11 | TGATGAGGGCGTCAAACTTG |
| 10604 | SNORA11 | TAAACAGAGGAGCCATTCTT |
| 10605 | SNORA11 | GAAGCCACATAGAGGTGTTG |
| 10606 | SNORA11 | ACACACCCAACAGGAATCTG |
| 10607 | SNORA11 | AATCTGGGGTCATTGTGATG |
| 10608 | SNORA69 | CAGATTGACATGGACAATTC |
| 10609 | SNORA69 | AGATTGACATGGACAATTCT |
| 10610 | SNORA69 | AAAATCATGACAGATTGACA |
| 10611 | SNORA69 | AAAATCAAAAATGATTAACA |
| 10612 | SNORA70J | TTGCACACTGGGCCCCCATG |
| 10613 | SNORA70J | TTATTGTACGGGTTGCTCTA |
| 10614 | SNORA70J | TGTTTGCAGCGATTGCACAC |
| 10615 | SNORA70J | GAGCAACCCGTACAATAAAC |
| 10616 | SNORA70J | CGGGTTGCTCTACGGGACCT |
| 10617 | SNORA70J | ACAGGCTGCATATACTACCA |
| 10618 | SNORA71C | GGAGGTGTGGGAAAGCTCCA |
| 10619 | SNORA71C | CCCTGGTCATTGGTAGTGCA |
| 10620 | SNORA71C | CCCTGCACTACCAATGACCA |
| 10621 | SNORA71C | CAAACACGGGGAAGTGCTCT |
| 10622 | SNORA71C | ATGATCACTTTCGAATGCAG |
| 10623 | SNORA71C | AGCACTTCCCCGTGTTTGGA |
| 10624 | SNORA73B | TCCAACGTGGATACCCTGGG |
| 10625 | SNORA73B | TCATCTTCAACGTTGTGGAA |
| 10626 | SNORA73B | GCTCTGTCCAAGTGGCATAG |
| 10627 | SNORA73B | CACTAATGAGCATTCCAACG |
| 10628 | SNORA73B | AGTCCTGTGGACAATGACTG |
| 10629 | SNORA73B | ACAACGTTGAAGATGAAGCT |
| 10630 | SNORD116-2 | TCCCCAAAAAAAACATTCCT |

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|---|---|---|
| 10631 | SNORD116-2 | CTCAGTTCCGATGAGAATGA |
| 10632 | SNORD116-2 | CGTCATTCTCATCGGAACTG |
| 10633 | SNORD116-2 | ACTCATACCGTCATTCTCAT |
| 10634 | SNORD12B | TCAACATAGTCGATCTGTCG |
| 10635 | SNORD12B | GATCAACATAGTCGATCTGT |
| 10636 | SNORD12B | GACAAAGGAGCTGCTCAAGC |
| 10637 | SNORD12B | CTGGCATATCAGACAGAAAC |
| 10638 | SNORD12B | ATCAACATAGTCGATCTGTC |
| 10639 | SNORD12B | AAGTCATCATATATGCCAGC |
| 10640 | SNORD14E | TTGGGTCACTCAGACATCCA |
| 10641 | SNORD14E | TGTAGGGTCACAATGATGAA |
| 10642 | SNORD14E | TCCACCAGAATTCAAGGTGT |
| 10643 | SNORD14E | GTCACTCAGACATCCAAGGA |
| 10644 | SNORD14E | GGTGGAAACCGCGAATGTTT |
| 10645 | SNORD14E | GCCAACACCTTGAATTCTGG |
| 10646 | SNORD3B-1 | TGAGCGTGAAGCCGGCTTTC |
| 10647 | SNORD3B-1 | GTAGAGCACCGAAAACCCCG |
| 10648 | SNORD3B-1 | CCGAAAACCCCGAGGAAGAG |
| 10649 | SNORD3B-1 | AGAAAGCCGGCTTCACGCTC |
| 10650 | SNORD3B-1 | AAACGCTACCTCTCTTCCTC |
| 10651 | SNORD3B-1 | AAAACGCTACCTCTCTTCCT |
| 10652 | SNORD7 | TTCACTGTTGGCTTTGACCA |
| 10653 | SNORD7 | TATTGCCATTGCTTCACTGT |
| 10654 | SNORD7 | GAGTGAAGTAGAGCCTGACC |
| 10655 | SNORD7 | CAAAGCCAACAGTGAAGCAA |
| 10656 | SNORD7 | AGTGAAGCAATGGCAATACC |
| 10657 | SNORD7 | AAGATTAAGAGATCATACCC |
| 10658 | SNORD99 | TGGATGAGAAATGCGGATAT |
| 10659 | SNORD99 | GTATTTAGAATGACTGGTCC |
| 10660 | SNORD99 | CTAATTTGAGTGGACATCCA |
| 10661 | SNORD99 | AGGATGAAACCTAATTTGAG |
| 10662 | SNORD99 | ACTCAAATTAGGTTTCATCC |
| 10663 | SNORD99 | ACATCCATGGATGAGAAATG |
| 10664 | SPATA31E3P | TGGTTTGTACATATCACCCA |
| 10665 | SPATA31E3P | TACAAATTCAGAATCCCGGG |
| 10666 | SPATA31E3P | GCTCCACAGACCCTAATCTG |
| 10667 | SPATA31E3P | GACAAACTGGGGATTCAGCA |
| 10668 | SPATA31E3P | AGGAGCGATGCACAGACACA |
| 10669 | SPATA31E3P | AGACACTGAGGGGTTACTAG |
| 10670 | SSX8P | TTGATAATGACCGTAACCGC |
| 10671 | SSX8P | TGGTGACAAAGTGTGGCTGG |
| 10672 | SSX8P | GTGGGAAAAGATGAAATACT |
| 10673 | SSX8P | GGAAAAGCCAAGCTGATGTG |
| 10674 | SSX8P | CCATGATGAGAAGCAGAACA |
| 10675 | SSX8P | AAGTCTGAAATTAAACACTC |
| 10676 | SUSD6 | TGACGTGTAAGAATGGCGAG |
| 10677 | SUSD6 | GGTTGCACTACCATCATACG |
| 10678 | SUSD6 | GCAGCACAAACAGCACCACG |
| 10679 | SUSD6 | GAAGCCACTATAGACAGCGT |

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|---|---|---|
| 10680 | SUSD6 | AGGGTGCAAAGGATCACTAG |
| 10681 | SUSD6 | ACAGCACAATCTGTACTCTG |
| 10682 | TBC1D27P | TGCCCCTCAGTAGAAGAACG |
| 10683 | TBC1D27P | TGCATCATTCAAAATACACA |
| 10684 | TBC1D27P | GGGGACTCATCTCAGCAGTG |
| 10685 | TBC1D27P | AGATTACAAAGCATTAGGGG |
| 10686 | TBC1D27P | ACTCGAGAGAGGGTCCTCGA |
| 10687 | TBC1D27P | AAATTGTAGTAAGGAAACCA |
| 10688 | TEX49 | TACTCTAATTTCAGACCAGA |
| 10689 | TEX49 | CCCCCATTATCTCAAAAGAT |
| 10690 | TEX49 | CAGCTTCGTGGTATCTTGTG |
| 10691 | TEX49 | CACCCATTCAGTTCCCAATC |
| 10692 | TEX49 | ATACCACGAAGCTGTCCGGA |
| 10693 | TEX49 | AGTTCTGAGCATCAGTCAAG |
| 10694 | TOGARAM1 | TTTGCTATCTACAAGAGCTG |
| 10695 | TOGARAM1 | CTGAGAACGCTTATACAACA |
| 10696 | TOGARAM1 | CCCAACTATCTGTACCCGAA |
| 10697 | TOGARAM1 | CAAAAATCGTCTGATCCTAC |
| 10698 | TOGARAM1 | AATGAAGCTCGACTTGACGA |
| 10699 | TOGARAM1 | AAGCCAACAAGACTAGAATG |
| 10700 | TOGARAM2 | GCACCGGGTCTCAACTCGTG |
| 10701 | TOGARAM2 | GAGGCGTGGCGGGCAAAGCG |
| 10702 | TOGARAM2 | CTCCCAGAGAGCCTTCATGA |
| 10703 | TOGARAM2 | CGGAGAAGGGAGGAGCACCA |
| 10704 | TOGARAM2 | CACATACTAGACACCCGCCG |
| 10705 | TOGARAM2 | AAGGAGAAGGCTGTCAGCGT |
| 10706 | TPSB2 | GCTTCAGAGGAAATGGCGGT |
| 10707 | TPSB2 | GCTGACCGCAGCGCACTGCG |
| 10708 | TPSB2 | CTACACCGCCCAGATCGGAG |
| 10709 | TPSB2 | CCTCAGAGACCTTCCCCCCG |
| 10710 | TPSB2 | CAGCGAGTGGGCATCGTTGG |
| 10711 | TPSB2 | AGTGCATCCAGTATCGGTCG |
| 10712 | TRBV23-1 | GGACATTTGGTCAAAGGAAA |
| 10713 | TRBV23-1 | GCCAAAGTCACACAGACTCC |
| 10714 | TRBV23-1 | GACACAGGGCTGCACAGCCG |
| 10715 | TRBV23-1 | ATGGATTGTACCCCCGAAAA |
| 10716 | TRBV23-1 | ATCTGCTGCCAGGAGACACA |
| 10717 | TRBV23-1 | AAGAACTTGTTCATTCTGAA |
| 10718 | TSPEAR-AS1 | TCAGAGCTCAGATCCGACTG |
| 10719 | TSPEAR-AS1 | CGTGGTTACCGAAAAACACG |
| 10720 | TSPEAR-AS1 | CCTACAGCGAGTGTGACCCA |
| 10721 | TSPEAR-AS1 | CCATCCCACACCCTACACCG |
| 10722 | TSPEAR-AS1 | ATACCTTTAGACCCTTCGAG |
| 10723 | TSPEAR-AS1 | ACCTGGCCACAAACACACGG |
| 10724 | TSPEAR-AS2 | GCACGGCTCCCACATGTCAG |
| 10725 | TSPEAR-AS2 | CTGTGAGTACACGTGACACA |
| 10726 | TSPEAR-AS2 | CTGATGACACATGACTGGTG |
| 10727 | TSPEAR-AS2 | CAGACAAGGAGCACACACGG |
| 10728 | TSPEAR-AS2 | ATTTGAAACGTTATCACACA |

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|---|---|---|
| 10729 | TSPEAR-AS2 | AAGTTACCTTCAAAGCACAC |
| 10730 | TSPY10 | GTGGTATCCGGATTATGAAG |
| 10731 | TSPY10 | GTATCCGGATTATGAAGTGG |
| 10732 | TSPY10 | GGATGGAGGCTGTACAGGAG |
| 10733 | TSPY10 | CTGTACAGCCTCCATCCTGA |
| 10734 | TSPY10 | AGGATGGAGGCTGTACAGGA |
| 10735 | TSPY10 | AAGCCCCACCTAGACCGCAG |
| 10736 | TSPY26P | TATGTAGGCCGCACATCCCA |
| 10737 | TSPY26P | GGTCCACAATTAGGGCACCA |
| 10738 | TSPY26P | GGCCGAGGACGCGAACAAGG |
| 10739 | TSPY26P | GCTCGGAGTAGTCGCCGTGG |
| 10740 | TSPY26P | ACTCGCATCCGATGGCACTG |
| 10741 | TSPY26P | ACAGGTTGTACCTCGCCCGT |
| 10742 | TTC3-AS1 | TCTGCAAAAAGGATCATGGA |
| 10743 | TTC3-AS1 | CTCAGCGGGAGATTCCCAGT |
| 10744 | TTC3-AS1 | CAAGGGCATCAAAAGCTTCG |
| 10745 | TTC3-AS1 | AGGAATACGGATGCTGGTGT |
| 10746 | TTC3-AS1 | AGCCGGTATTGCAGTTTCGT |
| 10747 | TTC3-AS1 | ACACGAGTGTGCATTACCTA |
| 10748 | TUBBP6 | GGCCAAATGCCACTACACAG |
| 10749 | TUBBP6 | GGCATTGTAGGGCTCAACCA |
| 10750 | TUBBP6 | GCTGACCCACTCACTTGACT |
| 10751 | TUBBP6 | CCACGGCCAATACCTCACCA |
| 10752 | TUBBP6 | AGATCCACCAGGATCGCATG |
| 10753 | TUBBP6 | AAGGATAGAATGTGCCCCAG |
| 10754 | UBE2F-SCLY | TTAAGGTAAAAGCTGAGTCA |
| 10755 | UBE2F-SCLY | GGAGGACGGTTCTATGTGGG |
| 10756 | UBE2F-SCLY | GATTGCCAGTGGGCGGAACA |
| 10757 | UBE2F-SCLY | GACTCGGCCGCTCTCGCCCG |
| 10758 | UBE2F-SCLY | CCACGGGCTTCCCAGAAGCG |
| 10759 | UBE2F-SCLY | CCAAATGCTATCATGAACGT |
| 10760 | UBR5-AS1 | TCCAGTAAAATGGATAACTG |
| 10761 | UBR5-AS1 | TATGGGAGGGATGTTGTTTG |
| 10762 | UBR5-AS1 | GAGCTATCCCAGAGTCCGCG |
| 10763 | UBR5-AS1 | CGAGCTCGGGAATCTCGAGC |
| 10764 | UBR5-AS1 | CACCAAGTGGCTAGAGCCCG |
| 10765 | UBR5-AS1 | CAAGTTGAGATAATCCCTTG |
| 10766 | UGDH-AS1 | TGCCAGGCTTTAGGGCTGCG |
| 10767 | UGDH-AS1 | GAGGAATCTGACTAAACCCT |
| 10768 | UGDH-AS1 | CGCACAGACATCCCAAATCC |
| 10769 | UGDH-AS1 | CATCTCATCTTAAAACCCAG |
| 10770 | UGDH-AS1 | ATCTCATCTTAAAACCCAGT |
| 10771 | UGDH-AS1 | AATGAAAACAACCTGGAGAG |
| 10772 | UMAD1 | GTACCAGAGACAGAAGCAGA |
| 10773 | UMAD1 | GGGTGAACGGCACATCGCTC |
| 10774 | UMAD1 | GACAGCAAGAGGCAAAACTT |
| 10775 | UMAD1 | CCTGAGATGGAAAATAAGGC |
| 10776 | UMAD1 | AGGGTCTGATACAGTCACAC |
| 10777 | UMAD1 | AGAGGCCAACCAACCTTTGG |

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|---|---|---|
| 10778 | USF3 | TCAGATACAATGCAAACCAC |
| 10779 | USF3 | GTCACAAAGTTGTTACTAGG |
| 10780 | USF3 | GGTATTTGGATCTTCGCTGG |
| 10781 | USF3 | CTGTAGCCACATATCTACTG |
| 10782 | USF3 | AGCAGTCCATCATTACAGGG |
| 10783 | USF3 | ACAAAAGCAGACCGCCAATG |
| 10784 | VEGFD | TAATTGAGTATGGATGGCGG |
| 10785 | VEGFD | CTGTTCAGATCGTTCCAATG |
| 10786 | VEGFD | CAGCCCTAGAGAAACGTGCG |
| 10787 | VEGFD | ATCGGAACACGTTCACACAA |
| 10788 | VEGFD | ACTTCGAATTACTCACTCTG |
| 10789 | VEGFD | ACTCTCGCTCAGCATCCCAT |
| 10790 | VNN3 | TGCTGCAGTATATGAGCATG |
| 10791 | VNN3 | GTTACCTGTCATGTGCATGC |
| 10792 | VNN3 | CTCCCACTTAGAATGATCTG |
| 10793 | VNN3 | CTATGGTTGGATCTTCACCA |
| 10794 | VNN3 | CCAGATCCCTGCCCTAAGCG |
| 10795 | VNN3 | AAAATGCCAAACTTCCCAAA |
| 10796 | VPS33B-DT | TTTGCAAACATCTGGTGAAG |
| 10797 | VPS33B-DT | GTGGTCTTGATTGTGTATGT |
| 10798 | VPS33B-DT | GAGACATGAACCATTACTCC |
| 10799 | VPS33B-DT | CAATACCTGGCCCAACGTTG |
| 10800 | VPS33B-DT | ATCATAAATGTGGAACGATG |
| 10801 | VPS33B-DT | AAGTCACCCCAACGGCAGTG |
| 10802 | VWFP1 | TGGCAACAGGACCAACACTG |
| 10803 | VWFP1 | TCAGGACTCATGGCACAATG |
| 10804 | VWFP1 | GGTGTCTTCCACTTTAACAG |
| 10805 | VWFP1 | CAGTAGAAATCGTGCAACAG |
| 10806 | VWFP1 | ACAAGGTGCCAGCATACCAG |
| 10807 | VWFP1 | AACAAGGCCTTCGTGCTGAG |
| 10808 | WHRN | TGGCATTTACATCACTGGCG |
| 10809 | WHRN | TACACCTGGGTGGACCCGCA |
| 10810 | WHRN | GCTGCTCTTCGACCAATACA |
| 10811 | WHRN | GATGTCAGATCCACCTCCCA |
| 10812 | WHRN | GAAGCGTTCTAGGTCTTGCG |
| 10813 | WHRN | ATCCTGACAGTGAAGGACGT |
| 10814 | YWHAEP5 | TGAGTGATACGATGAAATGG |
| 10815 | YWHAEP5 | GTGGCATATAGGCCTGGACG |
| 10816 | YWHAEP5 | GTAATGCAAGCATCTAAGAG |
| 10817 | YWHAEP5 | GACAATGGGGAGTTTCCAAG |
| 10818 | YWHAEP5 | CAACCTGCAAGCACGGTCAG |
| 10819 | YWHAEP5 | AGATGGTTACAGGTCGTTTG |
| 10820 | ZNF204P | TAGATGGGAAGCTTGAACGT |
| 10821 | ZNF204P | GTGGCGTTTCTGTGGTCATG |
| 10822 | ZNF204P | GACTACTTAGAATGATCACA |
| 10823 | ZNF204P | ACCCTATGAATATCATGACT |
| 10824 | ZNF204P | AAGTGCTAACCAATCACTGA |
| 10825 | ZNF204P | AAGACTTACATATATATGCC |
| 10826 | ZNF252P | TTATAAGCAAAAGTTTGTCA |

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| 10827 | ZNF252P | GTTTACTTAACTAAGAACCT |
| 10828 | ZNF252P | CCTCAAAGGAAACCACGATG |
| 10829 | ZNF252P | ATTTCAGAGAAATTACCATG |
| 10830 | ZNF252P | ATGCTGTATCATGTTGCACA |
| 10831 | ZNF252P | ATGCTGCAGAACAAACATGG |
| 10832 | ZNF32-AS1 | TTAGAGGCAGTACACTGCTA |
| 10833 | ZNF32-AS1 | GATAGGTTGCTTCATCTCAG |
| 10834 | ZNF32-AS1 | GAGCAAAGGGAGCCTGTCAA |
| 10835 | ZNF32-AS1 | CATTATCTGTATCACTCTCA |
| 10836 | ZNF32-AS1 | CAGTTTGCCCTACCCAATGA |
| 10837 | ZNF32-AS1 | AAGCAACCTATCCAGTTCTA |
| 10838 | ZNF33BP1 | TTGCTAGAAGACAAACTCTG |
| 10839 | ZNF33BP1 | TAATTATGCTTATATATACA |
| 10840 | ZNF33BP1 | GAGACTTGATTTGTGAGTGT |
| 10841 | ZNF33BP1 | ATTTAGTAAGGACTGAACTG |
| 10842 | ZNF33BP1 | ACATCAGAGAAAACACACGG |
| 10843 | ZNF33BP1 | ACATCACAGGCTACACACAG |
| 10844 | ZNF436-AS1 | TGTTGAGCCTAGTAGAGCAT |
| 10845 | ZNF436-AS1 | GCAGATAGATCCACCCACTG |
| 10846 | ZNF436-AS1 | CCTCATCTAAAGTCGATCCG |
| 10847 | ZNF436-AS1 | CACTGCAGTCCAGAACAATG |
| 10848 | ZNF436-AS1 | ATCCCCAGTGGAAAGAGCGT |
| 10849 | ZNF436-AS1 | AGGTTTAAGGATATACAAGG |
| 10850 | SEPT10 | CCAGATATACCAGTTCCCAA |
| 10851 | SEPT10 | ATGGATGCGAGAATCATGGT |
| 10852 | SEPT10 | AAATCCCACTGTATTCACAA |
| 10853 | SEPT10 | GCAAACTCTCAAAACCAACA |
| 10854 | SEPT10 | GAAGAACCTTGACAGCAAGG |
| 10855 | SEPT10 | TTACCTTGTACAACACCCCA |
| 10856 | SEPT12 | GGACCAAGCATCTCGCAGGG |
| 10857 | SEPT12 | GCTGTGCCGGACTGTGAATG |
| 10858 | SEPT12 | CGCTGTTCAAGTCCAAAGTG |
| 10859 | SEPT12 | GATCAACAATGACAACTGGT |
| 10860 | SEPT12 | CCCCCAGATGTGCTTTGACG |
| 10861 | SEPT12 | TGTACTTTGTACCACCCACT |
| 10862 | Control | ACGGAGGCTAAGCGTCGCAA |
| 10863 | Control | CGCTTCCGCGGCCCGTTCAA |
| 10864 | Control | ATCGTTTCCGCTTAACGGCG |
| 10865 | Control | GTAGGCGCGCCGCTCTCTAC |
| 10866 | Control | CCATATCGGGGCGAGACATG |
| 10867 | Control | TACTAACGCCGCTCCTACAG |
| 10868 | Control | TGAGGATCATGTCGAGCGCC |
| 10869 | Control | GGGCCCGCATAGGATATCGC |
| 10870 | Control | TAGACAACCGCGGAGAATGC |
| 10871 | Control | ACGGGCGGCTATCGCTGACT |
| 10872 | Control | CGCGGAAATTTTACCGACGA |
| 10873 | Control | CTTACAATCGTCGGTCCAAT |
| 10874 | Control | GCGTGCGTCCCGGGTTACCC |
| 10875 | Control | CGGAGTAACAAGCGGACGGA |

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| 10876 | Control | CGAGTGTTATACGCACCGTT |
| 10877 | Control | CGACTAACCGGAAACTTTTT |
| 10878 | Control | CAACGGGTTCTCCCGGCTAC |
| 10879 | Control | CAGGAGTCGCCGATACGCGT |
| 10880 | Control | TTCACGTCGTCTCGCGACCA |
| 10881 | Control | GTGTCGGATTCCGCCGCTTA |
| 10882 | Control | CACGAACTCACACCGCGCGA |
| 10883 | Control | CGCTAGTACGCTCCTCTATA |
| 10884 | Control | TCGCGCTTGGGTTATACGCT |
| 10885 | Control | CTATCTCGAGTGGTAATGCG |
| 10886 | Control | AATCGACTCGAACTTCGTGT |
| 10887 | Control | CCCGATGGACTATACCGAAC |
| 10888 | Control | ACGTTCGAGTACGACCAGCT |
| 10889 | Control | CGCGACGACTCAACCTAGTC |
| 10890 | Control | GGTCACCGATCGAGAGCTAG |
| 10891 | Control | CTCAACCGACCGTATGGTCA |
| 10892 | Control | CGTATTCGACTCTCAACGCG |
| 10893 | Control | CTAGCCGCCCAGATCGAGCC |
| 10894 | Control | GAATCGACCGACACTAATGT |
| 10895 | Control | ACTTCAGTTCGGCGTAGTCA |
| 10896 | Control | GTGCGATGTCGCTTCAACGT |
| 10897 | Control | CGCCTAATTTCCGGATCAAT |
| 10898 | Control | CGTGGCCGGAACCGTCATAG |
| 10899 | Control | ACCCTCCGAATCGTAACGGA |
| 10900 | Control | AAACGGTACGACAGCGTGTG |
| 10901 | Control | ACATAGTCGACGGCTCGATT |
| 10902 | Control | GATGGCGCTTCAGTCGTCGG |
| 10903 | Control | ATAATCCGGAAACGCTCGAC |
| 10904 | Control | CGCCGGGCTGACAATTAACG |
| 10905 | Control | CGTCGCCATATGCCGGTGGC |
| 10906 | Control | CGGGCCTATAACACCATCGA |
| 10907 | Control | CGCCGTTCCGAGATACTTGA |
| 10908 | Control | CGGGACGTCGCGAAAATGTA |
| 10909 | Control | TCGGCATACGGGACACACGC |
| 10910 | Control | AGCTCCATCGCCGCGATAAT |
| 10911 | Control | ATCGTATCATCAGCTAGCGC |
| 10912 | Control | TCGATCGAGGTTGCATTCGG |
| 10913 | Control | CTCGACAGTTCGTCCCGAGC |
| 10914 | Control | CGGTAGTATTAATCGCTGAC |
| 10915 | Control | TGAACGCGTGTTTCCTTGCA |
| 10916 | Control | CGACGCTAGGTAACGTAGAG |
| 10917 | Control | CATTGTTGAGCGGGCGCGCT |
| 10918 | Control | CCGCTATTGAAACCGCCCAC |
| 10919 | Control | AGACACGTCACCGGTCAAAA |
| 10920 | Control | TTTACGATCTAGCGGCGTAG |
| 10921 | Control | TTCGCACGATTGCACCTTGG |
| 10922 | Control | GGTTAGAGACTAGGCGCGCG |
| 10923 | Control | CCTCCGTGCTAACGCGGACG |
| 10924 | Control | TTATCGCGTAGTGCTGACGT |

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| 10925 | Control | TACGCTTGCGTTTAGCGTCC |
| 10926 | Control | CGCGGCCCACGCGTCATCGC |
| 10927 | Control | AGCTCGCCATGTCGGTTCTC |
| 10928 | Control | AACTAGCCCGAGCAGCTTCG |
| 10929 | Control | CGCAAGGTGTCGGTAACCCT |
| 10930 | Control | CTTCGACGCCATCGTGCTCA |
| 10931 | Control | TCCTGGATACCGCGTGGTTA |
| 10932 | Control | ATAGCCGCCGCTCATTACTT |
| 10933 | Control | GTCGTCCGGGATTACAAAAT |
| 10934 | Control | TAATGCTGCACACGCCGAAT |
| 10935 | Control | TATCGCTTCCGATTAGTCCG |
| 10936 | Control | GTACCATACCGCGTACCCTT |
| 10937 | Control | TAAGATCCGCGGGTGGCAAC |
| 10938 | Control | GTAGACGTCGTGAGCTTCAC |
| 10939 | Control | TCGCGGACATAGGGCTCTAA |
| 10940 | Control | AGCGCAGATAGCGCGTATCA |
| 10941 | Control | GTTCGCTTCGTAACGAGGAA |
| 10942 | Control | GACCCCCGATAACTTTTGAC |
| 10943 | Control | ACGTCCATACTGTCGGCTAC |
| 10944 | Control | GTACCATTGCCGGCTCCCTA |
| 10945 | Control | TGGTTCCGTAGGTCGGTATA |
| 10946 | Control | TCTGGCTTGACACGACCGTT |
| 10947 | Control | CGCTAGGTCCGGTAAGTGCG |
| 10948 | Control | AGCACGTAATGTCCGTGGAT |
| 10949 | Control | AAGGCGCGCGAATGTGGCAG |
| 10950 | Control | ACTGCGGAGCGCCCAATATC |
| 10951 | Control | CGTCGAGTGCTCGAACTCCA |
| 10952 | Control | TCGCAGCGGCGTGGGATCGG |
| 10953 | Control | ATCTGTCCTAATTCGGATCG |
| 10954 | Control | TGCGGCGTAATGCTTGAAAG |
| 10955 | Control | CGAACTTAATCCCGTGGCAA |
| 10956 | Control | GCCGTGTTGCTGGATACGCC |
| 10957 | Control | TACCCTCCGGATACGGACTG |
| 10958 | Control | CCGTTGGACTATGGCGGGTC |
| 10959 | Control | GTACGGGGCGATCATCCACA |
| 10960 | Control | AAGAGTAGTAGACGCCCGGG |
| 10961 | Control | AAGAGCGAATCGATTTCGTG |
| 10962 | Control | CGGCTCGTTCTACGCACTGA |
| 10963 | Control | TCCAGCGCGAGCTTACTCGT |
| 10964 | Control | GGAGTGGTCCCGTACGCAAC |
| 10965 | Control | CAAGACCTTATCGTGCAGCG |
| 10966 | Control | ACGTCGTTTAGCACCCGGCT |
| 10967 | Control | TTTCAGGCTACGGGCGCGGG |
| 10968 | Control | CAATCGGCGACGTTTTAAAT |
| 10969 | Control | GTACCCCTATGGCCGTTCTA |
| 10970 | Control | TACCCACGCGTATTCCATCT |
| 10971 | Control | CTTGTTGCGTATACGAGACT |
| 10972 | Control | GAACGCCGCTCAAGTTGATA |
| 10973 | Control | CGCAGTACGTATAGACTTAA |

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| 10974 | Control | GCGAACCCCGTAGCCAGGCT |
| 10975 | Control | CCTCGGGCGTAAATACTCAT |
| 10976 | Control | AGGGCACCCGGTTCATACGC |
| 10977 | Control | CACGGCCTAACTTGCTGATA |
| 10978 | Control | CCGGGAGATTAACGTTAATT |
| 10979 | Control | ATCTCGGGTCGACTGCGGAT |
| 10980 | Control | CGCCGGGACCGTTAGGGAAT |
| 10981 | Control | GCAAACCCGAGTGACACGTC |
| 10982 | Control | GTGCGTGAGTATTAACGCTC |
| 10983 | Control | GCTTAACCTATCCGCCAGTA |
| 10984 | Control | TGGCCACGAATTCCGCCGCC |
| 10985 | Control | GTAAGGCCCGCGTACGAGCT |
| 10986 | Control | CTCCTTACGTCGGGCATTAA |
| 10987 | Control | ATTCCTTCGGCGCTCTGCGT |
| 10988 | Control | ATGCGCTTTAATCGCCGTTC |
| 10989 | Control | TTAGCCCTCGATTGGTTGCG |
| 10990 | Control | AACGCTGTCGTACGTGTATA |
| 10991 | Control | TAACGCGCATATCTGAACAC |
| 10992 | Control | CGCTAGGTTATTTCGTGGCC |
| 10993 | Control | AATATTTGGCTCGGCTGCGC |
| 10994 | Control | CAATATCGGGTGCTACAGGA |
| 10995 | Control | CGGCCGCATCCTGTTATATT |
| 10996 | Control | CTGGATCGCCCGCAGAAATA |
| 10997 | Control | ATTAGCACGGCGACCTTCTA |
| 10998 | Control | TGGAAATCGACTGTGCGCTT |
| 10999 | Control | ATTAGCCGTTGCCATATCAA |
| 11000 | Control | ACCCGATAATAGCTACTGGT |
| 11001 | Control | ATTCAGCGCGCTCGCCCTGG |
| 11002 | Control | CCCGCCGAAGACCCTGCTTG |
| 11003 | Control | TGCCGTGAAAAGACGCTGCG |
| 11004 | Control | CTTACGCGCCTGGTCAAAAG |
| 11005 | Control | CGCATAAGTCGATAGACACA |
| 11006 | Control | GTCATCAGCGATTTGACGAG |
| 11007 | Control | CGAATCGGAACTTTGTACCG |
| 11008 | Control | AGGTCAAGCCGACCTCGAAC |
| 11009 | Control | TGCGCCTTACTCGTTAACTG |
| 11010 | Control | ATCTGAGCGTTTTCGGCCGC |
| 11011 | Control | ACGGTACATGCGCATGAGTC |
| 11012 | Control | TGACGCGATAGAGTTGGCTT |
| 11013 | Control | TTCACCGTCCACGTGCGCAT |
| 11014 | Control | TTCTTCGGCCTACACCCGGT |
| 11015 | Control | GGAATTACGACTAACCGATT |
| 11016 | Control | TGCGGGGAGCTCTCTTAATG |
| 11017 | Control | TAGAGATATCCGATCGTGGT |
| 11018 | Control | GGGTGCCCACTAATAGCCGC |
| 11019 | Control | TGCAGTCGCGCTGAGCGTCA |
| 11020 | Control | GGATTGAATGGCTAACGCGG |
| 11021 | Control | GCGGTTCCGGGAGCACATTT |
| 11022 | Control | GAAGACGTGCTGGCGTCACC |

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| 11023 | Control | GGCGCATTAAAGTCGAGAGC |
| 11024 | Control | GACGTAGCCTTCCGAAATAT |
| 11025 | Control | GGTTCGAGACCTACTTAAGT |
| 11026 | Control | TGAAGTGGGGCGTCGGACAC |
| 11027 | Control | CTATATTGTCGCGCAGTGGA |
| 11028 | Control | CGGCTTTGTTGCCCGTAAGC |
| 11029 | Control | TCCCGGTTGGTGAACGATAC |
| 11030 | Control | TTAACTCGAACGCTCGAAAG |
| 11031 | Control | GGACTATCCACCGTTTACTC |
| 11032 | Control | CAGTAGCGATCGAATGTCAA |
| 11033 | Control | TAGGCGCCCGTAGCATTGGA |
| 11034 | Control | GCGGCGTCTGGGAATCGTTC |
| 11035 | Control | CAGTGTCCGAGCGATATTTT |
| 11036 | Control | TTCAATCACCTCACGGTAAG |
| 11037 | Control | CGGTTTACATCTGCCCATCG |
| 11038 | Control | GGGCGTGTATGTTCGTATTG |
| 11039 | Control | GCGGCGTCATCCACGCGTGC |
| 11040 | Control | GGGTATAGACGCGATCCTCA |
| 11041 | Control | ACAGCGCTCTCGTGTACTAT |
| 11042 | Control | ACTAGCCTGTTCGCGAGTAG |
| 11043 | Control | GACCGCGTGAGATAACGTCA |
| 11044 | Control | CGCGTGCATCTGCCGAAGGC |
| 11045 | Control | AAAACATCGACCGAAAGCGT |
| 11046 | Control | ACACCGAAGCACCTGTACGT |
| 11047 | Control | GGGTCGAGGACTAATAGATT |
| 11048 | Control | ACGCCTCCTCAAATTAGCTC |
| 11049 | Control | CCTACGCGGTAGGGAACTTT |
| 11050 | Control | AAGCACTAGTCCGTATGATG |
| 11051 | Control | AGGCGCCAACATTGACCGTA |
| 11052 | Control | TAATCATGCACATTCGGGAC |
| 11053 | Control | CGTCGGGTAGCTATTTCTTT |
| 11054 | Control | GTGCGACGAATTGTCCTGAG |
| 11055 | Control | CTTCCGTTATTCGGAAGTGA |
| 11056 | Control | TACTGGAGTTTGCGACTCGG |
| 11057 | Control | ATCCAGATCACCACGCGTCA |
| 11058 | Control | CGTTAAGACTAGCTCGGTTT |
| 11059 | Control | ATACGGCCGAAGCCCCTTCA |
| 11060 | Control | AACATCTCGTTAGGGGTATC |
| 11061 | Control | GTCAGGTAATAGTCGGACTC |
| 11062 | Control | TTCGAGGTCCGGACAGGTCG |
| 11063 | Control | TGAGCATTCGTAGCCCAGCA |
| 11064 | Control | TAAGGCGACCTGCGCTTGTG |
| 11065 | Control | AGCTGCGCGCTACTGGATCA |
| 11066 | Control | GCAAAAACCCAACGCTATTC |
| 11067 | Control | GCCGCCGATTTCATAAGTAA |
| 11068 | Control | GTTCCGTGAGGGTTACTTCA |
| 11069 | Control | CGGGGAATTGCACGGCGGAA |
| 11070 | Control | TGTCTTTAAACACGCCATCG |
| 11071 | Control | ACAAAATGCCGTGCGTCAAT |

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| 11072 | Control | ACGCTCAGCACCCGCTATGC |
| 11073 | Control | CGAAACCCTCTTAAGTTAAC |
| 11074 | Control | TAAACCCTTGGCGCCCTCAC |
| 11075 | Control | CCATTCTCAACCGGTCCAAT |
| 11076 | Control | GTTATTGACCCGTCGGGAGT |
| 11077 | Control | GGTTTCACTTCGAGACCGGC |
| 11078 | Control | CTTTGATAACGTGGGCGGTA |
| 11079 | Control | CCCCAACTTTCGCGACTCCG |
| 11080 | Control | CAAACAGTCTAAGGCGACGA |
| 11081 | Control | CGGCACACCAATGCGTTCGT |
| 11082 | Control | ATCGATATACCGCCATAAAA |
| 11083 | Control | GGGACGCGAAAGAAACCAGT |
| 11084 | Control | AACGCGAGTCCGGTGGCTAG |
| 11085 | Control | TGTCATTAGCGTAACGATAT |
| 11086 | Control | AGGGCGAGCAGCAGAGTACG |
| 11087 | Control | CCGTCTCCGCATCGTCTTTT |
| 11088 | Control | CGTGCGTGAAATCGCTAGCT |
| 11089 | Control | ATCAGGCCTTGTCCGTGATT |
| 11090 | Control | CGTCCAGAAGAACGGCCCCT |
| 11091 | Control | AGAGCGTCTTCGTGACAAAC |
| 11092 | Control | GATGGCGCGCAGTTGAGTCA |
| 11093 | Control | ACGCTGACGAGTAAAAGCGG |
| 11094 | Control | TATCAATCGTCCGGGTCACT |
| 11095 | Control | TCAGATTCCGCAAGGGTCCA |
| 11096 | Control | GCGATCGGAGTGCCACGATA |
| 11097 | Control | ATATAAACTGTCGCGGTAAA |
| 11098 | Control | GTTACCTGCTACGAAAACGA |
| 11099 | Control | GAAGCGATCCGAGAGTGTAT |
| 11100 | Control | ATGACATTGCGCGTCTACGG |
| 11101 | Control | ATACCAGATGCGTCCGCTTG |
| 11102 | Control | AACGTGCTGACGATGCGGGC |
| 11103 | Control | CGGCACCTGTTAGGCTATTC |
| 11104 | Control | AGGATCGTGTACCGGGGACG |
| 11105 | Control | CGACAACGTGCAGGTGTATC |
| 11106 | Control | ACTCGAAATCACCTATGGTA |
| 11107 | Control | TCTCGTAGCCTAATGCGCCA |
| 11108 | Control | TTATGTGAGCACGCCATTAC |
| 11109 | Control | CGACGGTAATGCACCTACTA |
| 11110 | Control | ATCTGTGTGACTGCGGTCGG |
| 11111 | Control | TGGAAAGCGAGCACACCGTC |
| 11112 | Control | CAGCGCCGAAACTCTTTCCG |
| 11113 | Control | TGCCGTTAGCATGCGATCCC |
| 11114 | Control | TCGTAAACACACGACCAAGT |
| 11115 | Control | ACTACTCCGGCAAATACTCG |
| 11116 | Control | GCCCTTCAATGCGTTCCGTA |
| 11117 | Control | CAACACCCCGCGTTATGCTA |
| 11118 | Control | GCTGATATATACGACAAGCC |
| 11119 | Control | GGTATTCCGAAGTCCTCCGC |
| 11120 | Control | GGTCGCCTGTGCGACATGCT |

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| 11121 | Control | CTAATCACGACCTCACCCTA |
| 11122 | Control | ATCGGTACCTCTTCACATAT |
| 11123 | Control | TTGCGTCAGCGCTGCACATC |
| 11124 | Control | CGGTGTGCCCCCAAATATTG |
| 11125 | Control | CGTGCGGTAAATACGAAATA |
| 11126 | Control | ATACGAGGCGCTTTTCTTTG |
| 11127 | Control | TGTGCACAAGTCGCAACGAA |
| 11128 | Control | CTCGGCCCACTTGCGTTATA |
| 11129 | Control | TATACTGCGGATCAATCTGA |
| 11130 | Control | AAAGCGACGTAGGCATACTT |
| 11131 | Control | ACGATCGGTAATGGTCTGTT |
| 11132 | Control | GGGCCTACGATCAGAGGTGT |
| 11133 | Control | CGCAGTCATTCGATAGGAAT |
| 11134 | Control | GGCGATTCGGGTGGAGGTCG |
| 11135 | Control | AGTTGAATGGACCTCGACTA |
| 11136 | Control | GAGTAATTTCGAACGTATTG |
| 11137 | Control | TTCCACGGTAAAATCGGTCA |
| 11138 | Control | ACTGTTGCCGCGCCAACTGC |
| 11139 | Control | CCGGCAAGAAACTATACTTG |
| 11140 | Control | TAGTGGGAATGGTCGCGTAG |
| 11141 | Control | CCGCTGTCTCACTAATCTCA |
| 11142 | Control | TGCTACCTTCGGGACCACCA |
| 11143 | Control | CTTAGCTGACCGACAAGGTG |
| 11144 | Control | CTTAAGCTTATCAACATCCG |
| 11145 | Control | ACGGAAAGACCTCGCTATTC |
| 11146 | Control | CCCTTCTGGCGGGCCAAACA |
| 11147 | Control | TCTGACGATTAATGCTTCTA |
| 11148 | Control | GCGGAATGAACACGAGGTAG |
| 11149 | Control | CAGACGGTTGGTAAGGACGC |
| 11150 | Control | GGGACTGATATATGGCGAAC |
| 11151 | Control | AGAAGACCGAGGCGCTTCAA |
| 11152 | Control | CAGGTTTGCACGCATAGCTA |
| 11153 | Control | GGCCGTCGTATTCCCCCAAG |
| 11154 | Control | CTCCCATTGATCTACGATGG |
| 11155 | Control | TTTCGTGCCGATGTAACACA |
| 11156 | Control | ATCACGTGATCGGATGGTTC |
| 11157 | Control | GCCTATCGGCATTCCCACTG |
| 11158 | Control | CAACGACGGGCCTAGTCTCA |
| 11159 | Control | ATATTTCGGCAGTTGCAGCA |
| 11160 | Control | GATATCCCGCGAAAAAATCT |
| 11161 | Control | TCACTTGTCTATACGGGGTA |
| 11162 | Control | ATGTTATTACAGACGCGTGT |
| 11163 | Control | TGGGAATTCCTCGGCCGATT |
| 11164 | Control | CGCCTCTCACGTGTAGGCTT |
| 11165 | Control | GGGCGCTAAGATATATGCCC |
| 11166 | Control | CGTCATATACACAAACGCCC |
| 11167 | Control | CGTTGGGCATAGCGAACACT |
| 11168 | Control | GCGGGGCGGTGACTTTCAAG |
| 11169 | Control | AAGGGCGTGCCCTGCGTTGT |

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| 11170 | Control | GCGTTCCCCCACTGACGGGG |
| 11171 | Control | GATCCAGGAGTGATCGAGTA |
| 11172 | Control | AGCATTTGCGCGGCAACTGT |
| 11173 | Control | TTGTCCCTGAGAAAACGCGG |
| 11174 | Control | GTCCTCATCCGGTCAGGCTG |
| 11175 | Control | TATAGCTGTTTCGAAGGCGC |
| 11176 | Control | CGTGGTAGGGGTTTCCTCAA |
| 11177 | Control | CCATCACCGATCGTGAGCCT |
| 11178 | Control | TGAATCGTAACCTCGCCATT |
| 11179 | Control | AAGAAGGGCCGTACCCGAAA |
| 11180 | Control | CGTGTTTGGAATTTGCCGCG |
| 11181 | Control | CAAGTGAGCATAAGCGATGT |
| 11182 | Control | AGGACTAGTGTCGCACTCAG |
| 11183 | Control | GGCACTCCGAAAGACCTTAT |
| 11184 | Control | CCCAGGTGTATAATGAAACG |
| 11185 | Control | GACCGCAAAGTGGTCCGAAG |
| 11186 | Control | GTTGCGAGTTACTATTGGTT |
| 11187 | Control | TCTAAAGCCGTCCTGATGTT |
| 11188 | Control | GCCGTGGTATCAAGTCGGTA |
| 11189 | Control | CGCAATCCCTTAGGATAGCC |
| 11190 | Control | ATAGGCACCTTAAGGGTCTC |
| 11191 | Control | TTTGGGTTTATCCGCCCCCA |
| 11192 | Control | CTAGAGGGGTATAGCAACAA |
| 11193 | Control | CTCGGGACTAACGTGAGAGC |
| 11194 | Control | CCCCGTAGCTCATTAGTCTG |
| 11195 | Control | GAAAACACGATGACGTCTCT |
| 11196 | Control | GACGCCCTAATGCCCATCGT |
| 11197 | Control | GGATATTGAGTAAACCCGAT |
| 11198 | Control | TGACTCGGGCAATATCGGTT |
| 11199 | Control | GATCTAGTCCTCTAATCGAT |
| 11200 | Control | CATAAGGTTAACTGCGTGGA |
| 11201 | Control | GGTACCTGAACAACGGCACC |
| 11202 | Control | TGGCGGCCCAAACTTAACAC |
| 11203 | Control | GGGCGGTCAGGTCGCTCCGA |
| 11204 | Control | TCCGGAGGCTCAAACCAAGT |
| 11205 | Control | GCTTGCTATATGGGTGCGAG |
| 11206 | Control | TCGGCTACGGCGTGGAGAAG |
| 11207 | Control | CCCGTGGCGTGCGCACCTGT |
| 11208 | Control | GGCTGGTTGACGACTCCTGA |
| 11209 | Control | GGTGCGGTCTGCTTGTAGAT |
| 11210 | Control | TGCCTATGACCTAGGTACCA |
| 11211 | Control | GACAGATCACGTATCAGGGC |
| 11212 | Control | GAGGTATGTCATCGCCATGA |
| 11213 | Control | GCCATTCTAGTCCCGGCATA |
| 11214 | Control | TGAATCGAATACAAACGATG |
| 11215 | Control | GTTACGTACCCTCCAACTTC |
| 11216 | Control | CCAATGATAAGCCCGAACGG |
| 11217 | Control | AGCGATTCACGTATTAGATG |
| 11218 | Control | GCCAACAAGAATCGGATCCC |

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| 11219 | Control | ACTTACGGCACTCGCATGCC |
| 11220 | Control | GATATGGCTCGAGTAATCTT |
| 11221 | Control | GTATCCCATATCGGCACAGG |
| 11222 | Control | ATGCTGCAGCTTTACGATCA |
| 11223 | Control | GAGTGATGCTTAGACTCCGT |
| 11224 | Control | ACATACCCCCCTGGTTCAGA |
| 11225 | Control | GCCCCTTATGATTGTTATAG |
| 11226 | Control | AGGTCGGCCGAACATACGGT |
| 11227 | Control | ATTGCGCAATCCTTAGGATA |
| 11228 | Control | GAAGCGGGACCGTGTCTCAC |
| 11229 | Control | GTGTATGATGCTTCGACTTA |
| 11230 | Control | CCTACTCCCGTGTGTTATCC |
| 11231 | Control | ACAGCCCTCACGAGCCCGAA |
| 11232 | Control | GCTGTTGTAACGGTAGATAT |
| 11233 | Control | TACGAAACATCATGGGTTCC |
| 11234 | Control | CGCACGACCATTGCTGCTGC |
| 11235 | Control | CATTGCACGCCACAGCATTG |
| 11236 | Control | CGATGCCCGTCTATGGCCCG |
| 11237 | Control | CCAGCAATACCCCGGTATGG |
| 11238 | Control | TCGAGATGCGCAGCAGATGA |
| 11239 | Control | ACGGGGTGAAACCATGTCGT |
| 11240 | Control | CCTTGGCGAGACGGAGGTAC |
| 11241 | Control | CCATAGCTCTAGCGATAAAC |
| 11242 | Control | AGCTAGCGATGGCTCTAAGT |
| 11243 | Control | CGGGTCTCCAAAGATCGCTT |
| 11244 | Control | GGTCCGCGCACAAGAGCAGG |
| 11245 | Control | CAACCGGCGGGCCCCTACAA |
| 11246 | Control | TCCTCGATAGCTGGAATCCA |
| 11247 | Control | TACGGATCACCAAATCTTAG |
| 11248 | Control | CTCGCACCATTGAGGGTAGT |
| 11249 | Control | TCGGGGACCACCCACGATCC |
| 11250 | Control | CCTGCGGTGCACGGCTAGCC |
| 11251 | Control | ACCGCTCATATAGGTAAAAA |
| 11252 | Control | AGTATTGTGGTGTCGTCAAC |
| 11253 | Control | TGACGCTCCACGTCCGGACC |
| 11254 | Control | GCTCGCAAGTATTTAAGGAC |
| 11255 | Control | GCCAGGGTTCTTGGTCCCGA |
| 11256 | Control | GTCGCTGCGCCAGTGAGAAC |
| 11257 | Control | CCCGCTAACAGCCTAGATCA |
| 11258 | Control | TTGTACGGTACTGGCTTTGT |
| 11259 | Control | CAGGCTGCGCTTCGCAAGCT |
| 11260 | Control | GCCTAGTCTCGGTAAGAGTG |
| 11261 | Control | GGACGCACCATTCCGGGTGA |
| 11262 | Control | GATTGTGGTCGCTCAAAACC |
| 11263 | Control | CTATAACCGAATCAAAGGGT |
| 11264 | Control | AAATTGGCTTTCGTTCGTGC |
| 11265 | Control | TCACCTCCGAACGAACACCT |
| 11266 | Control | GGAGATGCGGCCTTCTCAAA |
| 11267 | Control | CTTAGGATTCCGAGGTATCT |

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| 11268 | Control | GAACTGGCAAACAGGCGTGG |
| 11269 | Control | CCTGTCGCTATCGTTAGAGA |
| 11270 | Control | ATAGCAGGACGAGGTTCCTT |
| 11271 | Control | GGCGTCAAAATTAGAAGCCG |
| 11272 | Control | TCGGCTACAATCTTTGGCAT |
| 11273 | Control | GCACGCTGTACAGACGACAA |
| 11274 | Control | GAGAGCGTTAGCGTGGGATG |
| 11275 | Control | TTCAATTCACCGAGGGCGCA |
| 11276 | Control | TTCGTGGTAGGTATAACTAT |
| 11277 | Control | TGAGCGGCCTCTAATTAATC |
| 11278 | Control | CGCTAAATTGTCACACGTTT |
| 11279 | Control | GGTTAACATCGCCACTCTGA |
| 11280 | Control | GTTTCTCTTGAACCCCGCGA |
| 11281 | Control | ATGTCTAGACCTAATCGTTT |
| 11282 | Control | ATTCATGCGCCGCCTCCTCT |
| 11283 | Control | ACCCATTGAGAGTCGCCTGA |
| 11284 | Control | CACCCGGAACCACTACTGAG |
| 11285 | Control | GCTGAACGCCGACAGGACGG |
| 11286 | Control | GCCCAGACGCCCTAGAATAG |
| 11287 | Control | GGGATGCGTCTTGCTAAACC |
| 11288 | Control | ATCGTTGCTGACAGGATCTA |
| 11289 | Control | TAGTCTCACCTGATGGCGTG |
| 11290 | Control | CCCTACCTATCCGGTGCTTT |
| 11291 | Control | GTTATCCTGTCGAAGTAAAG |
| 11292 | Control | TACTTTTTGGAATCCGTCTA |
| 11293 | Control | CAGCGGTGCTATTTGGTCTT |
| 11294 | Control | CTGCGTGTCTTGCTCGCATG |
| 11295 | Control | CCTAGTTCATAAGCTACGCC |
| 11296 | Control | TGTCTTCGGATAGGCGGCTT |
| 11297 | Control | CGCACATCTAAAGTTACTAC |
| 11298 | Control | GTAGGGTACAGCGTCAGCTT |
| 11299 | Control | GAAATGCTATGCTTCGGTTC |
| 11300 | Control | TCAACCCCAGCGCACCGTTG |
| 11301 | Control | AATGCGAGTGTATCCGCAGT |
| 11302 | Control | TTTATGCATTTAATACGCCG |
| 11303 | Control | CATTGCACTCGTTGCCAACG |
| 11304 | Control | GCCCCGTAAATCTCATTACA |
| 11305 | Control | TCCGTCTGCTTCATGAGCGG |
| 11306 | Control | CTCGGAATACTCCTATTACA |
| 11307 | Control | CTAACGGACTGCAGAACGGA |
| 11308 | Control | ACAAAGATCGCATGGCATAC |
| 11309 | Control | ATCTTCTCGACGAAAATGCG |
| 11310 | Control | CATGGCCTACGGTGTCTTTG |
| 11311 | Control | CTGGCCGAATCTCACTATGT |
| 11312 | Control | GGGGCTTACGTGAAGGGCGG |
| 11313 | Control | ACACCCATTCTCATAACGGA |
| 11314 | Control | GGCCACGAAGGGCGAAAAGG |
| 11315 | Control | TAACCGATACTCCCCACATT |
| 11316 | Control | GCACATCGTTATATACCAGA |

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| 11317 | Control | CGAGCAAAGATTGTTGGATA |
| 11318 | Control | GCCACACGAATCATAAAGAG |
| 11319 | Control | GAGAGTGCGCCTTGATAGTA |
| 11320 | Control | GGATTTGTCGCTTGCCACAC |
| 11321 | Control | GGCTTACGTGGGGGGCAAAA |
| 11322 | Control | CGTTGTAGGGTCTTTCTTGA |
| 11323 | Control | ATTGCTCTGTCGCATCAATC |
| 11324 | Control | CTCAGTGGATACGATTTGCT |
| 11325 | Control | ACTACTGGCTATCCGCGCCA |
| 11326 | Control | ACCCAATGTGGCGGAGCCGA |
| 11327 | Control | ACCTATAATCGACCACATTT |
| 11328 | Control | TAGGAGCTGTATCTAGTGGC |
| 11329 | Control | CCAATCTTGAACGTCATGTT |
| 11330 | Control | ACCCATATATGCTGCCGCAC |
| 11331 | Control | GCCAGGGTATGGGCATCTCG |
| 11332 | Control | CATAGGTCCCTAGCAACTCC |
| 11333 | Control | ATACGCATGATTGCAAGAGG |
| 11334 | Control | TTCGTAGGAACTAAACTGTA |
| 11335 | Control | TTTGGTCAACGCATAGCTTG |
| 11336 | Control | CGGTGCTGTGAAAGCCGAGC |
| 11337 | Control | GGCCCTCTAGAAAAGTCTCG |
| 11338 | Control | ACGGTTATGGTCTCATGGGG |
| 11339 | Control | AACTAGAATAGGCGGGCTTG |
| 11340 | Control | TAATCACATTGCTTAACCGG |
| 11341 | Control | ACTGCTCCCGGTCGCCCCTC |
| 11342 | Control | CGCCCGTTTATGTGGCTACC |
| 11343 | Control | GAGTACAGCGATTCCTCATG |
| 11344 | Control | TTTCTAGTTACTACTGGACG |
| 11345 | Control | CACGCACAATCCTTCACGCA |
| 11346 | Control | TGCCGCTATACTAAAACCTT |
| 11347 | Control | GTTTACTCATATCCAGTCAC |
| 11348 | Control | TCGGCTCCTGAAGCCAGTAT |
| 11349 | Control | TCGATGTAGCCCCGCCCAAG |
| 11350 | Control | AGACCCCGTAGGCAGGACGT |
| 11351 | Control | TCCCAAGGGTTTAAGTCGGG |
| 11352 | Control | TATACCAGACCACAGCGCCG |
| 11353 | Control | CGTGCCTTTACATTCACTTT |
| 11354 | Control | TTTTGACTCTAATCACCGGT |
| 11355 | Control | GCTGTTCCGAAGTTGAGAAT |
| 11356 | Control | GCTTAAGTCACGGCTTTCCA |
| 11357 | Control | ACTAGAGTCATGATCAGCGA |
| 11358 | Control | CTGCCCCAGGCGTAATCCTC |
| 11359 | Control | GTCCCGTGATTTTAGCCAGG |
| 11360 | Control | GCTTCGCTGGCAGGACCTCA |
| 11361 | Control | CGTAATTTTGTAATCGCTTC |
| 11362 | Control | AGTCTTGGCCAATGTCACGG |
| 11363 | Control | CCCGGACGTCAAAGCTGGAT |
| 11364 | Control | GGTCTCACCTGCACCCCGAA |
| 11365 | Control | GGTAGACGGGGCATCTCAGC |

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| 11366 | Control | ATGTAACGAGTTGTAAGTCA |
| 11367 | Control | TAGTCAACATTCGCAAGAGG |
| 11368 | Control | TTTACGAAGTATACCAGGTC |
| 11369 | Control | GTAGCTGCTGTAAATCGCAT |
| 11370 | Control | CGAAACCTCCTAACTGAGAG |
| 11371 | Control | ATAAGCCACACTACCCGCCT |
| 11372 | Control | TACGTAAGTGACGACAGGAA |
| 11373 | Control | CTTTATCTGGCGTGGGGTAT |
| 11374 | Control | TTAATTTGGGTGGGCCCTGC |
| 11375 | Control | CCACTGGTAAAGGCTAGACT |
| 11376 | Control | CCCCTATGCAGACTACAATT |
| 11377 | Control | CTGGTGACCGACAATTACAC |
| 11378 | Control | CTGTCCACCTACAGCGATGT |
| 11379 | Control | ACGTGGGGACATATACGTGT |
| 11380 | Control | TCTGGCTTGCACCGTGTCAT |
| 11381 | Control | GTCCAATAAAAAGTGCCACT |
| 11382 | Control | GTTCCCCGGGAAGTCTATGC |
| 11383 | Control | CTGACGTGTCTGAAATGAGT |
| 11384 | Control | ATTTCCCTACGGAGATATCC |
| 11385 | Control | ATCAAGTCAGGTTATGCGGG |
| 11386 | Control | GGATACCTGGGCCGACTTTC |
| 11387 | Control | CTCCGTTATGTGGCATGAGA |
| 11388 | Control | CGCAGGCTAGATGACACCAG |
| 11389 | Control | TTCGGAACTTACTCAGGGTA |
| 11390 | Control | GCGGGCAGAACGACCCTGAC |
| 11391 | Control | ATAGGTCATCCACTGGGCGG |
| 11392 | Control | AAGCGGGCACACATGACAAG |
| 11393 | Control | CCGTGTTCCACAACTACCCT |
| 11394 | Control | GTAAAGAAGCGGAAAGGTCC |
| 11395 | Control | GCCTGCCCTAAACCCCGGAA |
| 11396 | Control | TACGTCATTAAGAGTTCAAC |
| 11397 | Control | CGATGGATCCCTAGTTCCTG |
| 11398 | Control | GCTGCGGCGAGATCACATAA |
| 11399 | Control | CGCGCACCACGGGCGCGCAC |
| 11400 | Control | CATTGTATGAACGCAATAGC |
| 11401 | Control | CAGAGCCTTGCGCAATTTTG |
| 11402 | Control | TGCAGGTCTAGGTCCCAAAG |
| 11403 | Control | CCGCGCATTTCAGAGCACAA |
| 11404 | Control | AAAACAGGACGATGTGCGGC |
| 11405 | Control | ACCTATTGTCCCTTCAAGCT |
| 11406 | Control | AAAAAGCTTCCGCCTGATGG |
| 11407 | Control | TTGCAAAGCTGATCGGCTGT |
| 11408 | Control | AAAATTATCGGAAACGGTAG |
| 11409 | Control | CTGTATTAACGAACCTTGTG |
| 11410 | Control | AGTCATAACTGAGTGAATCG |
| 11411 | Control | TAGTTACAGACTCAGCGGGT |
| 11412 | Control | CCAGGCTGAAGTTCGTACCT |
| 11413 | Control | TATTTATACACTATGCGGCA |
| 11414 | Control | CACTTACACATGAGGCGGTA |

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| 11415 | Control | TTTCGCCCAAGAGGCTTGGG |
| 11416 | Control | CGCGTGTAGCTGGAGACAAG |
| 11417 | Control | CGGAGTTAACCTGGAACCTT |
| 11418 | Control | AGCGCTCTGGTTGCATCCCT |
| 11419 | Control | ATAGAAGTGTGACCGCTGGG |
| 11420 | Control | GGTTGCTGTGACGAACGGGG |
| 11421 | Control | GTATTAAGATGCGTCTTAGA |
| 11422 | Control | GGCCACAAAAACTCGCTAAG |
| 11423 | Control | TCTCTCGGAGTGGAGCAACA |
| 11424 | Control | GAACCGACTTGAAGGGGGCT |
| 11425 | Control | ACTGAGTGGGTAACACGCAT |
| 11426 | Control | CCTAAGGGGTACCACCATGG |
| 11427 | Control | TCCCCGAGACCATCTTAGGG |
| 11428 | Control | CCTAAACTCAGACGCACTAC |
| 11429 | Control | TACCCTGGATTGTCCTTGCG |
| 11430 | Control | ACGCCATATTTCTGGCTCTA |
| 11431 | Control | CATCTGTAGGGTTGCAAGCC |
| 11432 | Control | TAGCTCGAGTCATTTCTCTA |
| 11433 | Control | TTTAACTGTCCCGGTGTGCA |
| 11434 | Control | CCTCGTCCAGATTCCGGCGG |
| 11435 | Control | AATGGGTTGCCGGGAGTAAA |
| 11436 | Control | TGGATCGGCAGTGGTACTGG |
| 11437 | Control | AAATACAAGCTATAGCGATA |
| 11438 | Control | CATGAGCGCATTGAATAATA |
| 11439 | Control | GACTTTGGTTGAGCTTCAAT |
| 11440 | Control | GTTGGCATATTGGCCCAGAC |
| 11441 | Control | GGAACCCTCCCTGCGATAGA |
| 11442 | Control | CTCACGGGGACATACAGGGC |
| 11443 | Control | GATCATAATCGCTTCAAGCA |
| 11444 | Control | CGACCCGGAGGATGAGATGT |
| 11445 | Control | TATTTTGACTTGACGCAGGC |
| 11446 | Control | CGGGATGGTCCCTGCCGAGA |
| 11447 | Control | TAGATTGGCCCCACAAAGCG |
| 11448 | Control | CCACACCTGTCTAGCATGAC |
| 11449 | Control | GAACCCAACCTTTTACCGCA |
| 11450 | Control | GTACACACTTATGCCATCAC |
| 11451 | Control | GAGTCGAAGATGGTCTAGGA |
| 11452 | Control | TTCCTGCCCGAACTGCAGAA |
| 11453 | Control | CGGCTGAGGCACCTGGTTTA |
| 11454 | Control | AGGTTGAATACCCCTTACTA |
| 11455 | Control | CCTGCGCGTAGAACAGTGGT |
| 11456 | Control | CACGCTTCTGCCATCACCGG |
| 11457 | Control | AATCGCAGGTATCCCAGAGC |
| 11458 | Control | TCGGGCAGTGAGTACAATAC |
| 11459 | Control | GAGACCACTTTCGTGCAAGC |
| 11460 | Control | TGTCCCTTGCAACCTCCGTT |
| 11461 | Control | ACAAACGACCTTGAGCAGGG |
| 11462 | Control | GTACATTCCAGTATTCACGC |
| 11463 | Control | GGAGAGGGCCCGCGAACTCA |

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| 11464 | Control | GGCTGGTTGACCTTCCCGCT |
| 11465 | Control | GATGTGATCTATGGTTGCGA |
| 11466 | Control | ACGTCAACTGCTGGAGTGGG |
| 11467 | Control | ATTTAAACCGTTACACAGTC |
| 11468 | Control | CACGCCAACTAAAACTGCAG |
| 11469 | Control | CCTAGAGGTCCCAAGGCGTG |
| 11470 | Control | CCGTTGATCCCCAGGCGTGC |
| 11471 | Control | CCTCGATGGTCACCTGTAGC |
| 11472 | Control | GTGCGCATGGGCTGATGTTA |
| 11473 | Control | AGACTCGTATTGTCATATTA |
| 11474 | Control | GGATCTAGCTACCTCAAAAG |
| 11475 | Control | AGAACCCAGACGCCAGCGGT |
| 11476 | Control | CGAACTTCTGGCTGCAGTTT |
| 11477 | Control | ATATGACAGGGCAAACGCAT |
| 11478 | Control | GGGACATCCTTGCCGTCTCA |
| 11479 | Control | AGCATTCTCACCAAGACCGA |
| 11480 | Control | ATAGTAACGTCAGGGAGTAA |
| 11481 | Control | CGAATATTATTTCTATCGGG |
| 11482 | Control | GAGTGTAAGCTAACACTCTG |
| 11483 | Control | ATACAATACTTTGGCGCATA |
| 11484 | Control | CTCCCTGCCGGCCGGGTTAG |
| 11485 | Control | GAACCTCCCCGAATATCTGG |
| 11486 | Control | ATCTTCAGGGTAACTACGAA |
| 11487 | Control | TTCTAAGCCACGTGTGGTAC |
| 11488 | Control | AGAAACTGAACTATCCTACT |
| 11489 | Control | CAGACCTAGCTCCGCTCCCA |
| 11490 | Control | AAATGCACAGATCGCTGATC |
| 11491 | Control | TCAATTCTCACTCACGACCA |
| 11492 | Control | ACGGTGGGGATGGACCTACT |
| 11493 | Control | TGTGTTAGCCGAGATCTCTG |
| 11494 | Control | GCTAGTGTCGTGGGGGATGA |
| 11495 | Control | CGAAGTCTTTCTTAGATGGT |
| 11496 | Control | TATTTCTCCTAAGTCTAGCG |
| 11497 | Control | ATGCGAAACGACATTTATTA |
| 11498 | Control | CATGATAGATCAGTCTTCCC |
| 11499 | Control | AGTGGGGCGCTAAGTGGGGG |
| 11500 | Control | CCCAATGGCTTCTGCGTGAC |
| 11501 | Control | AGATTCATTCACGAGTTGGG |
| 11502 | Control | AGCTTTCGAAATTGAGTGTC |
| 11503 | Control | CTAAGTTTGTTAATGGGCCA |
| 11504 | Control | CTTTTTTTATTTATCGATCG |
| 11505 | Control | TGTAGCTAAGTGAGTATGCC |
| 11506 | Control | AGTAGACGGACGGTGAGCTG |
| 11507 | Control | TTGTCCGTGACCCTGATTAA |
| 11508 | Control | TCTACGTGTAGTTGTACATA |
| 11509 | Control | CAATGGCGTGGACATTTGAT |
| 11510 | Control | TTCAGCGAGTGTGACTAAGC |
| 11511 | Control | CACATGGGGTACAGCACACC |
| 11512 | Control | CAAAAGTCTCGCTTGGTCCT |

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| 11513 | Control | GGTTTTATAAGGGTGGGCCT |
| 11514 | Control | TCGGAAGCAAACTTCTGGAG |
| 11515 | Control | ACTATCATGGCACCCAATTG |
| 11516 | Control | TTAGCCAGTAGTGCATATGA |
| 11517 | Control | GGGACTGTAGGAACATCCGC |
| 11518 | Control | AAGAATTAGGCACGGTTACT |
| 11519 | Control | TTTTTCTCACCCGATGAATC |
| 11520 | Control | AAACCCTATGCCCAAATGAG |
| 11521 | Control | AGGCTTAAATGGCGAGATTG |
| 11522 | Control | CATTAGTCTGATACCTGTGC |
| 11523 | Control | GGTGCTTAGCTCTGCGCACA |
| 11524 | Control | AGGCCACAAATTGTATACAG |
| 11525 | Control | ATGCCTTAGACTTAACCTCG |
| 11526 | Control | CCAGTGCCCTTTTGTCGCAA |
| 11527 | Control | AGCGATCTGGACACTCTCCA |
| 11528 | Control | AGTCTTAAAGACCCTAAGCT |
| 11529 | Control | AGGTAAGCCCCTTAGAACTG |
| 11530 | Control | TTGGTCCGAGTCTGGAGAAA |
| 11531 | Control | CAAAAAGGCGTTTGAGCGTG |
| 11532 | Control | GTGTAAATCTGTCCAAGTAG |
| 11533 | Control | AATCTTACTCGTCCTCCTTG |
| 11534 | Control | GACCTATGCCAGAAAGTTCG |
| 11535 | Control | ATGCGCAGCTCCAGAATTTT |
| 11536 | Control | GGTCCCTCAGGGTGCAACTT |
| 11537 | Control | GCCCCAAGCTAGAACTCAGC |
| 11538 | Control | CCATTCCGTAAGGGCTTGGA |
| 11539 | Control | AAACCTAGCCCCAATACTTA |
| 11540 | Control | TACGGGTGTCTCCATCTTGC |
| 11541 | Control | GGTCTGCTCCAATGGGAACC |
| 11542 | Control | CTTACCCCTATTATAATGAA |
| 11543 | Control | GAGCAATCCAAAGTTAACGG |
| 11544 | Control | TCACTTTACACTTGTAGTGT |
| 11545 | Control | TTCTTAGAAGTTGCTCCACG |
| 11546 | Control | ATCTCTATACTGTCACTCGC |
| 11547 | Control | GAACGTAGAAATTCCCATTT |
| 11548 | Control | CGAGTGGGAAACGGGAATCA |
| 11549 | Control | ATTGAGAATTCGTTTCAAGG |
| 11550 | Control | CATCATAAATGTACAACGGG |
| 11551 | Control | TCCCTCCTAGTCAAGAAGAG |
| 11552 | Control | CGACTGACCCCTGGGTGAAG |
| 11553 | Control | GAACGTCCAAGCAAGGGAGC |
| 11554 | Control | GGGTGGTCATTCTCTACTTG |
| 11555 | Control | AGTGAGTGACAACCAGATCG |
| 11556 | Control | GGAAACTGGGTTTCATCGTC |
| 11557 | Control | TATGACCCTGTTACATTGCC |
| 11558 | Control | TGAGCATGTCGGGAGTAACT |
| 11559 | Control | CGGTGAGCCACACGAAGGAA |
| 11560 | Control | TGGGGACGTTTATCAATATA |
| 11561 | Control | GTTCATTTCCAAGTCCGCTG |

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| 11562 | Control | CGTCCCTTCGTCTCTGCTTA |
| 11563 | Control | TGCATGCCGAGCATTTTCAA |
| 11564 | Control | GTTTTTGGTTAATTGCCTAC |
| 11565 | Control | CGGGTTATGTGATGCCATCT |
| 11566 | Control | CATTAGCAGCCCAGCGCCCA |
| 11567 | Control | ATCAGCCCATTTCTGCGCAC |
| 11568 | Control | GTGAAACAGAGGGTCCATCA |
| 11569 | Control | CGTAGTAAATATCTAGCTAA |
| 11570 | Control | ATTAAACGACACCTTATTCT |
| 11571 | Control | CCCTCAGGAGCTACTAAGGT |
| 11572 | Control | GAGGGGGCTTCAAACATGTG |
| 11573 | Control | TCGCAAGGAAGCCAGCTAAG |
| 11574 | Control | CGGAGCTTAGCGTGGGGGCG |
| 11575 | Control | GCTCCCATCCATAGTAAAAA |
| 11576 | Control | TGACTAGCTCTTACATATTC |
| 11577 | Control | CCTTATGGAATCAGACCGTT |
| 11578 | Control | CGTCAAGTATTAAGCTGCTT |
| 11579 | Control | ATAGCGGATGTCCTTGGAAA |
| 11580 | Control | ACGCATGCTTCCCAAAGCGT |
| 11581 | Control | AGTATTAGGTACCTGCCCTA |
| 11582 | Control | TAGAGTGCATAAGAGAACCA |
| 11583 | Control | AGTGTATCTTCCACCTGTCT |
| 11584 | Control | AGTATGAGACTCATAGGGTG |
| 11585 | Control | GAGTTTCTAGTAGTGGTAGG |
| 11586 | Control | GAAACGAGAAGTTTGTACTA |
| 11587 | Control | AGCCCGCCACAGAATAGCTG |
| 11588 | Control | GTTGATCGAAAATGGGAGAA |
| 11589 | Control | TAGGGGATTAGCTGACAGTC |
| 11590 | Control | GCTTGCATAATTCTGGCCAG |
| 11591 | Control | GCTAAGGTCATGTTTGCAAT |
| 11592 | Control | GACACTATCCAACCCAAGAG |
| 11593 | Control | GAGTTATTTATTCTCTCGAG |
| 11594 | Control | CAGTCGTTTCTATGGGATCT |
| 11595 | Control | AAAATCGATGGGCTGAATCT |
| 11596 | Control | GTTCTGCCACCGACTTGGCC |
| 11597 | Control | GACGCCTTGCCCGGCTCACA |
| 11598 | Control | ATTTAGTAATGCACACCCAG |
| 11599 | Control | TAGTTCTAATCGTTCCTTGA |
| 11600 | Control | CTTTTCAGCTGAGACGTACG |
| 11601 | Control | CACCCTTATATTCAGTAACT |
| 11602 | Control | TGCCCACTTAGCAACACTCT |
| 11603 | Control | CACTGCAGTATTCGTGGCCT |
| 11604 | Control | TGCCTCTCCCTTACCCGGAC |
| 11605 | Control | AGAGCATGATGACCCGTGAC |
| 11606 | Control | GGTGTCACCACCGCTTACCA |
| 11607 | Control | CAGCCTATTTTGCTACCTAC |
| 11608 | Control | GCCAGCGGGGATATGGTGAA |
| 11609 | Control | ACGCTCTCCTGGCAACAAGT |
| 11610 | Control | TGGAGAAACGAGGTGTAATA |

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| 11611 | Control | TATAGACCTCCCAAATACAT |
| 11612 | Control | GGCGTTAATTAAACTGTTTT |
| 11613 | Control | CAGGGTTGCGCAGAGGACTC |
| 11614 | Control | AAGTGACGGTGTCATGCGGG |
| 11615 | Control | TGTCAGTAGTCAGGACCCCG |
| 11616 | Control | GGAATCCGGAGCTCATGAGG |
| 11617 | Control | CATTAAACCTTGCCCCACAA |
| 11618 | Control | CGGCACTAGAAGTTTTTGAA |
| 11619 | Control | CCAGTTATAATTAGGGGTTT |
| 11620 | Control | CCTCTCACCGACTCTGTGTC |
| 11621 | Control | TAACCCAGAAGCCCATTCAG |
| 11622 | Control | GCAGTACTACTGAGTTTTTC |
| 11623 | Control | CGACCCATGGATGTGAACCC |
| 11624 | Control | AGATGGTCAGATCTAGTAGT |
| 11625 | Control | CCACGATGCCACCTCATCCC |
| 11626 | Control | TAGTCCTTAGGGTGGGCTGA |
| 11627 | Control | CGTGTGTGGGTAAACGGAAA |
| 11628 | Control | CTCTGTGAGATGTCCCGAAA |
| 11629 | Control | TTGGGGATTAACCCAGAGCC |
| 11630 | Control | TTCCTAGAGTTGGCAGACGC |
| 11631 | Control | GACAGTGAAATTAGCTCCCA |
| 11632 | Control | TGTTCTACTTTCGAAGTTAA |
| 11633 | Control | GGGAGTTGATTGTTTCGAGA |
| 11634 | Control | TAGAATTTGACCAAAGGCAC |
| 11635 | Control | CTTCTAGCTGGTTCATTGCT |
| 11636 | Control | CCCTGTGAAGGAGGCGTAAG |
| 11637 | Control | CAAGCATTTAGACACCTGTC |
| 11638 | Control | GTGTATGAATGTTAATTCCG |
| 11639 | Control | CGGCCAAAGAATTAGAAGTT |
| 11640 | Control | GGACTTTAGTTCCAGTGGTT |
| 11641 | Control | TGAACGGTGAAGAGATAGGG |
| 11642 | Control | AGCCGGCTTGTGACAGTGAA |
| 11643 | Control | CCAAAAAGATGAATATCTCG |
| 11644 | Control | GATTCATACTAAACACTCTA |
| 11645 | Control | ATTTATAAACACAGGGTCGC |
| 11646 | Control | AGGGGCAGGGCTATCTTATG |
| 11647 | Control | GTAAACTTTGTCTGGAGTAT |
| 11648 | Control | GAATAGATTTGTCAGTTAGG |
| 11649 | Control | AGTTCTGTTCGATAGATGCC |
| 11650 | Control | GTGATAATGATGTATTCTCG |
| 11651 | Control | TCCTCACCTAAAGTGCAATA |
| 11652 | Control | GTTTTCAGTTGCCCAACAGC |
| 11653 | Control | CGCGCAGAAGGCAAGCAGGG |
| 11654 | Control | ATTTTCGAAAGCTTAGGCCA |
| 11655 | Control | GTTTCGAAACTTGAAGTAAG |
| 11656 | Control | CTAACATGAGTACATAGATA |
| 11657 | Control | ACCACTAATGAGATTCTTGT |
| 11658 | Control | AGGATGCTGAACAAGTACGT |
| 11659 | Control | TTCTAAGCGCCCTGGGGACA |

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|---|---|---|
| 11660 | Control | ATCCTAGGTACAAAAGGACG |
| 11661 | Control | GTATTACTGATATTGGTGGG |
| 11662 | Control | CTCATGAGTCGTTTCTTTCA |
| 11663 | Control | CTTAAGGCGAGAAAAATTAG |
| 11664 | Control | TTAACGCCTTATTTTTATGT |
| 11665 | Control | GGATGTTTCTGTGCGCACAT |
| 11666 | Control | TCAGTATCGGCTGCTGGTAA |
| 11667 | Control | GTCAAGAGATTATGAGATTC |
| 11668 | Control | CAGACCCAGTAAAACCACCA |
| 11669 | Control | CACCATAGAACCTGAAATAC |
| 11670 | Control | AGCTGAAAATATACGTATTC |
| 11671 | Control | TCTATTTTGTCTGCGCAGAA |
| 11672 | Control | GCTTTTTCCAGCGAGAGCAA |
| 11673 | Control | GGATTAATTCGCTAAATGAT |
| 11674 | Control | ATAAGCTACTCTGAGTTCCT |
| 11675 | Control | GTGAACTGCAATCTTATTAT |
| 11676 | Control | GATTTTAGCTTAGGTCTTAC |
| 11677 | Control | ATGCAAGACAGCCTCCCAGC |
| 11678 | Control | TGTAGTCTGGGGTAGACTCC |
| 11679 | Control | GACGAGGGCGGCAGAGCAGT |
| 11680 | Control | GGACCAACTCCCCTGCCCAC |
| 11681 | Control | GGGGCAGGGACCGAGTATCC |
| 11682 | Control | CTGCCCTCTTGAAATAGCCA |
| 11683 | Control | AGGGATCGTTAGGAAGGGAA |
| 11684 | Control | TGAGTCTTACTAGGTCCTGT |
| 11685 | Control | CACATAACATGAGGTATCAG |
| 11686 | Control | CTTCCTGCGTGGCTTTAAAC |
| 11687 | Control | ATAGCTAAAGTTGATGTGTA |
| 11688 | Control | CTTAACACTTTAGTGCGTCA |
| 11689 | Control | CTTATTACTCCAGTATAAGA |
| 11690 | Control | AGGGAAACCTCTATGGGTAA |
| 11691 | Control | AAGCCATTGTATAACTCCAG |
| 11692 | Control | TGCAAGGACCTGGTATGAAC |
| 11693 | Control | CCAGAGCCTTGGTTTATATC |
| 11694 | Control | GCTGGAGAGACAATTCTACT |
| 11695 | Control | TGTAGATATAGGGTGTCTAC |
| 11696 | Control | GCGAATGCCTGAAAGTATAA |
| 11697 | Control | ATACTCTCACAGGTACATAA |
| 11698 | Control | ATGGAAGAGCGTCATGACTT |
| 11699 | Control | TTGCAATGCTGCTATAGAAG |
| 11700 | Control | AAGGCAATTTACTGGATCCT |
| 11701 | Control | CTGCACTGTGGAGACGCCCG |
| 11702 | Control | AGGACACAGGATACGCAGCT |
| 11703 | Control | TGCTCACTCCACTCCTCAAC |
| 11704 | Control | GGAGAGGAAAATCGGCACAG |
| 11705 | Control | GCACAAAACCAGCAATGGTC |
| 11706 | Control | AGCTTAATGTGCAGGTCAGA |
| 11707 | Control | ACTAGGGCAGTGTGTCTGCA |
| 11708 | Control | CTCCCAGTACCAGTCAGTTC |

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|---|---|---|
| 11709 | Control | TCAGGATCAGGGTGTATGGC |
| 11710 | Control | GGGAGGTGGCTTTAGGTTTT |
| 11711 | Control | AGGATGGATTGAGCAGCGGT |
| 11712 | Control | AACAGGAAACGTGACTAAAG |
| 11713 | Control | CTGGCTTATTAGCTATAAAG |
| 11714 | Control | GCAAAAGTGGCATAAAACCG |
| 11715 | Control | ACAAAAAACTACGGTGATTA |
| 11716 | Control | TGACACATTGGCTGGGTGTT |
| 11717 | Control | ATGATATCTGACATGCAGCG |
| 11718 | Control | AGAATGCCATCTAGTTAGTA |
| 11719 | Control | TTGGCCTGGAATTTAGGATC |
| 11720 | Control | TCTGAAAAATAGGCCCAACC |
| 11721 | Control | GTGGGGTAGTCTGTTGCTCG |
| 11722 | Control | GAGCAGCTGTCAGGTCTTGT |
| 11723 | Control | CATGGCATAAGTATAAGACA |
| 11724 | Control | GCCTGGGTTTTGGTGCATAC |
| 11725 | Control | GCACTTTGTTTGGCCTACTG |
| 11726 | Control | TAGATCGAGTTTATTTTCCT |
| 11727 | Control | CTCTTTTGAGATTGACAAGT |
| 11728 | Control | TTGCAGCCACTCCTGCAATA |
| 11729 | Control | GAACTCAACCAGAGGGCCAA |
| 11730 | Control | TATCTCTGCATAAAAGTGCC |
| 11731 | Control | CAAATGCCATTTAGGTTATC |
| 11732 | Control | GCACGAGGTGAACAGCCGCT |
| 11733 | Control | GTGAGATGCACCTTTTGGCC |
| 11734 | Control | TGGCAGTGGAAAATCTGCGG |
| 11735 | Control | TCATGCTTGCTTGGGCAAAA |
| 11736 | Control | TGACCTCTGAGGAATTCACA |
| 11737 | Control | AATTTATCGTCAACATTAAT |
| 11738 | Control | AAACTGTAGTGCAGGGTCAG |
| 11739 | Control | AAGTGTGTGCATAGCAGGGT |
| 11740 | Control | GCAATGCAATCGCAGGAGCA |
| 11741 | Control | GGTCCCTCTGGCTGGGTTAA |
| 11742 | Control | GAGCTTAGCAAAGGGTTGGG |
| 11743 | Control | AACTACAAGTAAAAGTATCG |
| 11744 | Control | TTATATGGTTTTAAACGGCT |
| 11745 | Control | GAGGACCTTAAGGTGACATG |
| 11746 | Control | CTTAAGTCATGAGCAAAGAT |
| 11747 | Control | AAACGAGATCGAGAAAGGTA |
| 11748 | Control | ATCTGCCATGGCGTCCTGGC |
| 11749 | Control | AGTGCTACTGAAACTTGCCT |
| 11750 | Control | AGTGTTTGAAAAAAGGGCGG |
| 11751 | Control | CCAGAAAGCCTCTCCATTAC |
| 11752 | Control | TCCTGCCAAGAAACACCCTT |
| 11753 | Control | GACCTTCATTGAAGAAAAGC |
| 11754 | Control | GAGATGATAACTTAATTTGT |
| 11755 | Control | AAGAGATCACATCTAGGCCA |
| 11756 | Control | GTTAGGAATAAAAGCTTTGA |
| 11757 | Control | ACTTCCCACTTCTTAGGTTG |

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|---|---|---|
| 11758 | Control | CCATTCACAATCCCACTACA |
| 11759 | Control | TGTTTTGCATGTTGCATAGG |
| 11760 | Control | TAAGCCTCATGAAGGAGGGG |
| 11761 | Control | GGTACTGGAAGTCCGAAACC |
| 11762 | Control | AAATAATATGCATCTCTCGA |
| 11763 | Control | AGCTGGACTCTGTAGAAATC |
| 11764 | Control | CCTAACCCCTGGCCAGGAAG |
| 11765 | Control | AACCACGGCATTGAGAGGTG |
| 11766 | Control | AGTACCCCTAGGTATGGGGA |
| 11767 | Control | CCTCTGGAAGGACACTTCTG |
| 11768 | Control | TCTACCTATTGTGGAATTTG |
| 11769 | Control | TACATGGTATAGTGTTTATT |
| 11770 | Control | TGCAACCTTCCTTTTCAGGA |
| 11771 | Control | GGGCAGAAGTTGCTGTCCTG |
| 11772 | Control | AGGAGTGTTATGAAAAGGCT |
| 11773 | Control | ACAGGTTCTTATTCATTGAC |
| 11774 | Control | ATCCATGTGGTTACAATATT |
| 11775 | Control | GGGGAAACAAGTAGGCTTTG |
| 11776 | Control | TCAAGGAGCCTTATTTCTTG |
| 11777 | Control | AGAGGGATTGGGAGCTTGAC |
| 11778 | Control | ACTGCTGCTGACATCTCTTA |
| 11779 | Control | TGGAGTGCACGCGAAAAGAA |
| 11780 | Control | ATCTACAATCCAGCCCTCTA |
| 11781 | Control | TTTTACCTTGTTCACATGGA |
| 11782 | Control | GTAAATTAATGTAACTACCG |
| 11783 | Control | ATTAGGCCTTTTTCTTAACT |
| 11784 | Control | TCCCTGCATTCATGGTTTTA |
| 11785 | Control | TGTGAAAGTTTATGGTGTTA |
| 11786 | Control | GGAGTATAAAAAAGTGGTGT |
| 11787 | Control | GCTTTCAATTGCAAAAATAC |
| 11788 | Control | ACTCAGCCATTTTATTAGAA |
| 11789 | Control | AAAGACTTGCTCCAAAACAC |
| 11790 | Control | GGCTCTGGGGCTCACGGACG |
| 11791 | Control | ACCCATGAGTTAAGTTTTCT |
| 11792 | Control | TAAATTCAGACCACAGCTAA |
| 11793 | Control | GGAATGTCCTAGGTTACTGA |
| 11794 | Control | CTCTCTCCTACCTGTCCACC |
| 11795 | Control | CCTTGAAATCAAATCAAACC |
| 11796 | Control | AGGGTCAGTCTGTCCTTTTT |
| 11797 | Control | CCTCTCCCAATCTACAGCTC |
| 11798 | Control | GCAGCGAGATAACTTGACTC |
| 11799 | Control | ATCAAAGTGTCTGACTTATT |
| 11800 | Control | CAAATACAATTACTTATAGC |
| 11801 | Control | CAAAATCTAGCAATTTTTGG |
| 11802 | Control | CTAAAATTTTTGCGTGTTTG |
| 11803 | Control | GCAAGGTCATGAAACCAAGC |
| 11804 | Control | CGTGTAAAAATACCTTTCTA |
| 11805 | Control | CTGTGTTGCTCCCCTCCCCT |
| 11806 | Control | GTCTTCACAGGGTGCAACGA |

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|---|---|---|
| 11807 | Control | GCAAATTCAGACAGCTAATT |
| 11808 | Control | TTCCATTGGCTGGAATCTGA |
| 11809 | Control | CTGAAGGTGTCTGGCAGAGC |
| 11810 | Control | GTAATTTTATGAGTTAAGTG |
| 11811 | Control | TAGTACATGTGTGGTATTTA |
| 11812 | Control | AGTGTGGAAAAGCTAACAGA |
| 11813 | Control | TGCCCCACCCCAGTGCTCAG |
| 11814 | Control | GATCCTTCTCTTTTTGGTTT |
| 11815 | Control | TCGAGAGGAAAAACACACTG |
| 11816 | Control | AATTTAAGCTTCGTAACTGG |
| 11817 | Control | ACTGCTGCTGTCTTCTAAAT |
| 11818 | Control | GATCCAGCAATATTTCTTAA |
| 11819 | Control | CCAGCCAAGAATCCAGCCCC |
| 11820 | Control | CAGAGACAATGACATGTAGA |
| 11821 | Control | GGAACGAGGCAGTGACAGGG |
| 11822 | Control | GCTAGTTTCTGTTAGCTCCT |
| 11823 | Control | TTTGGCAGTACCTTTTATTA |
| 11824 | Control | AAAATAGCAGTAAACTCAAC |
| 11825 | Control | TCAGCAAAGGACGAAACAAA |
| 11826 | Control | AAGGACTGGAATATGGAGAG |
| 11827 | Control | AGTTCCCAGAAATATATTGC |
| 11828 | Control | GTTTAAAGAAAGGGGCTAAG |
| 11829 | Control | CCAGTTGCTCTGGGGGAACA |
| 11830 | Control | GAAAGGCATAGTGAGAATGG |
| 11831 | Control | ACTATTTAATATTGGTAAGT |
| 11832 | Control | TCATCTTACATCTGGGAGAC |
| 11833 | Control | CAAGTTTTCTGAAAGGCAAT |
| 11834 | Control | AAAGATATAGCAAATTATGG |
| 11835 | Control | ACCTTACAATAAGTTATATT |
| 11836 | Control | TGTCATGCGTCACTTAGTGC |
| 11837 | Control | AAGTGACAGATGGGCAGGCG |
| 11838 | Control | GGTCTCTGTACGGGCCGCCC |
| 11839 | Control | TTGGATATTAATTAGACATG |
| 11840 | Control | GACTTCTAGAATATAAAAGA |
| 11841 | Control | TTCCTAAGATTTTTAAGACT |
| 11842 | Control | TAGTGGAAAATGAATATTGA |
| 11843 | Control | TTTTTAATACAAGGTAATCT |
| 11844 | Control | CGGGATGCAGCTGGAGAGGA |
| 11845 | Control | TATAACGGTAATGGGATTCC |
| 11846 | Control | AAGAAGAATTGGGGATGATG |
| 11847 | Control | CAAAGGGGGAAGTGCAGGGA |
| 11848 | Control | TAAAGCAGAAGAATATACAG |
| 11849 | Control | ATTTAGTAGACATTGGGTCT |
| 11850 | Control | GAGAAGGATGGAAATTAGAA |
| 11851 | Control | GTGTAGTCCTAGCCATGGGG |
| 11852 | Control | GCCCCGCCGCCCTCCCCTCC |
| 11853 | Control | AAAGAAAGAGGAATAGTAGC |
| 11854 | Control | GAGAAGTGGGGAGCCATTGG |
| 11855 | Control | AGAAGAAAAAAATGTCTACG |

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|---|---|---|
| 11856 | Control | GACTGAAATCCAAGGACTGT |
| 11857 | Control | ATATTTTATGACATAAAAAT |
| 11858 | Control | TAAACAAAAAGGAAATAGTT |
| 11859 | Control | TTTCCCATGATCATTTAGTG |
| 11860 | Control | CTGAGTGAAAAATAAAAGTT |
| 11861 | Control | GACAATCATGGTGAAAGCGG |

**Supplementary Table2 shRNA and siRNA Sequences**

| shRNA | Sequences (5'>3') |
|---|---|
| shRNA-MAP2K2 | CAACATCCTCGTGAACTCTAG |
| shNC（negative control） | TTCTCCGAACGTGTCACGT |
| **siRNA** | **Sequences (5'>3')** |
| 1-MAP2K2(HUMAN)-sense | CAAAGACGAUGACUUCGAATT |
| 1-MAP2K2(HUMAN)- antisense | UUCGAAGUCAUCGUCUUUGTT |
| 2-MAP2K2(HUMAN)-sense | GCAUUUGCAUGGAACACAUTT |
| 2-MAP2K2(HUMAN)- antisense | AUGUGUUCCAUGCAAAUGCTT |
| 3-MAP2K2(HUMAN)-sense | CCAUCUUUGAACUCCUGGATT |
| 3-MAP2K2(HUMAN)- antisense | UCCAGGAGUUCAAAGAUGGTT |
| 1-MAP2K1(HUMAN)-sense | GAGGUUCUCUGGAUCAAGUTT |
| 1-MAP2K1(HUMAN)- antisense | ACUUGAUCCAGAGAACCUCTT |
| 2-MAP2K1(HUMAN)-sense | GGACUCAUUACUCUGUGCATT |
| 2-MAP2K1(HUMAN)- antisense | UGCACAGAGUAAUGAGUCCTT |
| 3-MAP2K1(HUMAN)-sense | GAGCAGAUUUGAAGCAACUTT |
| 3-MAP2K1(HUMAN)- antisense | AGUUGCUUCAAAUCUGCUCTT |
| 1-ERK(HUMAN)-sense | CAGGGUUCCUGACAGAAUATT |
| 1-ERK(HUMAN)- antisense | UAUUCUGUCAGGAACCCUGTT |
| 2-ERK(HUMAN)-sense | GCUGCAUUCUGGCAGAAAUTT |
| 2-ERK(HUMAN)- antisense | AUUUCUGCCAGAAUGCAGCTT |
| 3-ERK(HUMAN)-sense | CCAGGAUACAGAUCUUAAATT |
| 3-ERK(HUMAN)- antisense | UUUAAGAUCUGUAUCCUGGTT |
| 1-SP1(HUMAN)-sense | GCUCUGAACAUCCAGCAAATT |
| 1-SP1(HUMAN)- antisense | UUUGCUGGAUGUUCAGAGCTT |
| 2-SP1(HUMAN)-sense | GCAGACCUUUACAACUCAATT |
| 2-SP1(HUMAN)- antisense | UUGAGUUGUAAAGGUCUGCTT |
| 3-SP1(HUMAN)-sense | GGGAAAGUGUAUGGCAAGATT |
| 3-SP1(HUMAN)- antisense | UCUUGCCAUACACUUUCCCTT |
| Negative control-sense | UUCUCCGAACGUGUCACGUTT |
| Negative control- antisense | ACGUGACACGUUCGGAGAATT |

**Supplementary Table3 Primer Sequences**

| Gene | Sequences (5'>3') |
|---|---|
| CRISPR Library-F | TGGACTATCATATGCTTACCGTAAC |
| CRISPR Library-R | TGAATACTGCCATTTGTCTCAAGATCTAG |
| Human MAP2K2-F | GGAACTTGACGAGCAGCAGA |
| Human MAP2K2-R | AAGGTGGATCAGCTTCCTGG |
| Human MAP2K1-F | TGAAGCTGGAGAGGACCAAC |
| Human MAP2K1-R | CTCCCACCTTCTGCTTCTGG |
| Human ERK-F | GCCGAAGCACCATTCAAGTT |
| Human ERK-R | CCTCTGAGCCCTTGTCCTGA |
| Human SP1-F | CCACCATGAGCGACCAAGAT |
| Human SP1-R | TGAAAAGGCACCACCACCAT |
| Human MAP2K2-promoter-F1 | GTGGTAAGGCAAGCGAGGGCG |
| Human MAP2K2-promoter-R1 | AGGGGAGGGGCGGCCACAAG |
| Human MAP2K2-promoter-F2 | GGTTCTCTCAGCCCCAGCCTG |
| Human MAP2K2-promoter-R2 | GGCGCCCTCGCTTGCCTTAC |
| Human MAP2K2-promoter-F3 | CCATCCTGGCTAACACGGTG |
| Human MAP2K2-promoter-R3 | GGAGTGCAGTGGTGCGATCTC |
| Human GAPDH-F | ACCCACTCCTCCACCTTTG |
| Human GAPDH-R | CTCTTGTGCTCTTGCTGGG |