

Figure S1.

BMDMs were cultured with M-CSF for 7 days and stimulated with 10ng/ml IL-4 or vesicles for 48h to harvest M2 macrophages for flow cytometry.

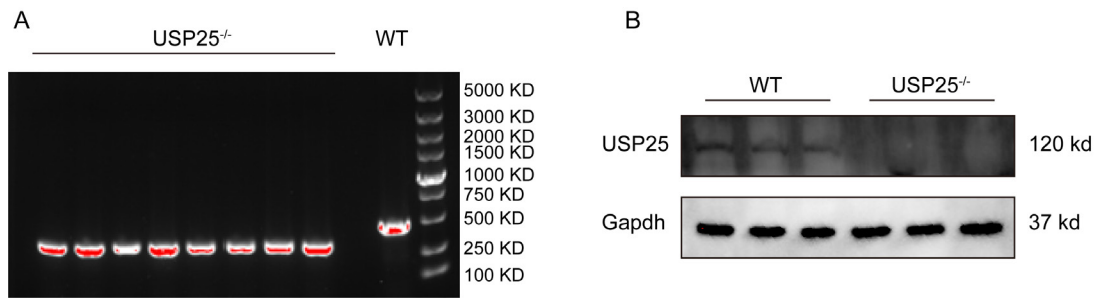


Figure S2.

Identification of USP25 knockout mice.

(A) The USP25 knockout mice. (B) Western Blot Confirmation of USP25 knockout efficiency in mice BMDMs.

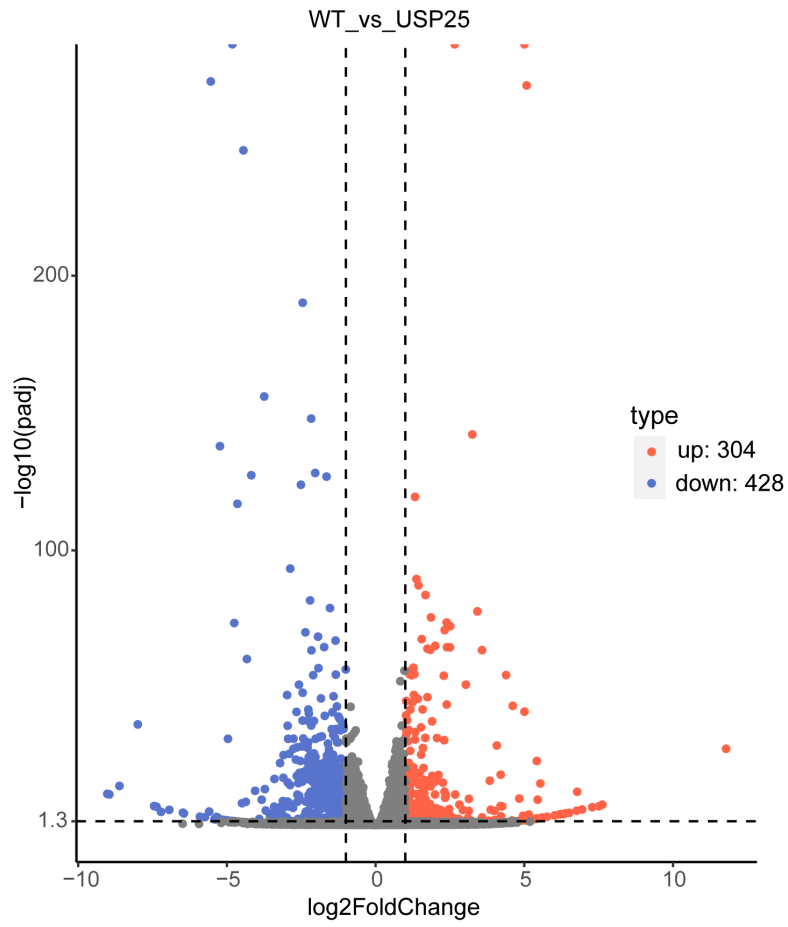


Figure S3. RNA seq analysis results of WT and USP25^{-/-} mice IL-4 stimulated BMDMs.
Differential gene volcano map.

Table S1 List of genes and Primers used for qRT-PCR.

Gene Symbol	Primers (5'→3') (F = forward, R = reverse)
<i>β-actin</i> (mouse)	F: 5'-TTGGGCTCCTGAGGAAACC-3' R: 5'-CGATGTTGTGTAAACCAACCAGA-3'
<i>USP1</i> (mouse)	F: 5'-ATGCCTGGCGTCATACCTAGT-3' R: 5'-GCAGCTTACTGGGGAGGAC-3'
<i>USP2</i> (mouse)	F: 5'-TGGGGCTTCTGCTCAACAAAG-3' R: 5'-GAGGCAGTAATCTCTCAGCTCT-3'
<i>USP3</i> (mouse)	F: 5'-TCAGCCAAGTTCCTCCCAACG-3' R: 5'-GCCATTCACATACCTTCCACAGT-3'
<i>USP4</i> (mouse)	F: 5'-AGCACTGCACCTAGCAGAAAT-3' R: 5'-AGACACTGAGCAATAGGGACT-3'
<i>USP5</i> (mouse)	F: 5'-GTGTTACCGACGATCCGTGTC-3' R: 5'-GTTTCATGCAGATATAGAGGCCAC-3'
<i>USP6</i> (mouse)	F: 5'-TCCGACCAGGATGTAGCACTC-3' R: 5'-CTTCCCAGGGCTCGATCTCT-3'
<i>USP7</i> (mouse)	F: 5'-AAGTCTCAAGGTTATAGGGACGG-3' R: 5'-CCATGCTTGTCTGGGTATAGTGT-3'
<i>USP8</i> (mouse)	F: 5'-AGACTCTCCGAAAGCCTTAAACT-3' R: 5'-GCCGTTAATCCTTTGGGTTTTGG-3'
<i>USP10</i> (mouse)	F: 5'-AACCCACAGTATATCTTTGGCG-3' R: 5'-CCCTCACTAGGTTTCGATGACTTC-3'
<i>USP11</i> (mouse)	F: 5'-AACAAACATACCGGACGAGGAT-3' R: 5'-CCTTCATGCCTAGAGGGTTCC-3'
<i>USP12</i> (mouse)	F: 5'-ACAGTCTCCAAATTCGCCTCC-3' R: 5'-ACTGAGTTGCAGTAGCAGGTATT-3'
<i>USP14</i> (mouse)	F: 5'-ATGCCACTCTACTCTGTTACAGT-3' R: 5'-AACACCATTGGAGGTTTCATCAG-3'
<i>USP15</i> (mouse)	F: 5'-CCGTGGATGAAAACCTGAGTAG-3' R: 5'-TTCTCTTAGGCAGACAGGGATAA-3'
<i>USP16</i> (mouse)	F: 5'-AGAAACGGACCAAGGGGAGAA-3' R: 5'-AGAGCCAAACCGAAGGGTCT-3'
<i>USP17</i> (mouse)	F: 5'-CCCTCAGGATACGTCACCCAT-3' R: 5'-AGGAAGGGATCGAAGGTATGTG-3'
<i>USP18</i> (mouse)	F: 5'-TTGGGCTCCTGAGGAAACC-3' R: 5'-CGATGTTGTGTAAACCAACCAGA-3'
<i>USP19</i> (mouse)	F: 5'-TGAACCAGAGCAGTGTACGTT-3' R: 5'-CTGCACCTCGTGTAGCAGG-3'
<i>USP22</i> (mouse)	F: 5'-CTCCCCACACATTCCATACAAG-3' R: 5'-TGGAGCCCACCCGTAAAGA-3'
<i>USP24</i> (mouse)	F: 5'-TGAAAGCCGCGTTTTGACT-3' R: 5'-AGTACCCCACTTGTGAACAGC-3'
<i>USP25</i> (mouse)	F: 5'-CAGAAGCACCAGCAGACATTT-3' R: 5'-TGGCATTCTTTGCAGTGAGGA-3'
<i>USP26</i> (mouse)	F: 5'-CTCAAGTCCAGATGTGGAGTGC-3' R: 5'-CTGGTCTTCGCCATAGGTTTG-3'
<i>USP27</i> (mouse)	F: 5'-GGCAGGAATTGCGGGTTATCT-3' R: 5'-CACGACTTTGCCTTGCTTTTC-3'
<i>USP28</i> (mouse)	F: 5'-GGGTCCGAGAAGGAAAGCC-3' R: 5'-CACGGAACGATCCGAAGGAAG-3'
<i>USP29</i> (mouse)	F: 5'-TCCGCAGCACAAACAGGAG-3' R: 5'-CTCACCCTAACCCTACGCC-3'
<i>USP30</i> (mouse)	F: 5'-CCTCCACTTTGCGAGCCTC-3' R: 5'-CAATCCCACCGATCACTCCC-3'
<i>USP31</i> (mouse)	F: 5'-GAGCAAAGCAGATTCTTCCAGG-3' R: 5'-CTCAAGCTCCGGTCAGAAGTC-3'

<i>USP32</i> (mouse)	F: 5'-TTCCCTCAGGACAACCAAAAAG-3' R: 5'-GCAATCTGTTTGAATTGGACTGC-3'
<i>USP33</i> (mouse)	F: 5'-GAGGTTTGTGTCTCATGTGTCC-3' R: 5'-GTTTCATCTCTGGCGAAGAAGG-3'
<i>USP34</i> (mouse)	F: 5'-GATATTGGTGGTCGTTTCATGTGT-3' R: 5'-TTGGCAAATTCGTAAAGGAAAGC-3'
<i>USP36</i> (mouse)	F: 5'-CAGCCTCTGCCAAGAAGGTG-3' R: 5'-CCACTTCCAGACACACGCT-3'
<i>USP37</i> (mouse)	F: 5'-AGTCAGCCTGCTCGTTCACTA-3' R: 5'-AAGTCAACATTAGGCGGCTTT-3'
<i>USP38</i> (mouse)	F: 5'-GTCGCCATCCTGGACTACATT-3' R: 5'-CTCTCGCAAACCATTCGCAG-3'
<i>USP40</i> (mouse)	F: 5'-AAATCAGGGTGGAAACCTGTTACC-3' R: 5'-GAAGCTGTCGGTGAGGTCT-3'
<i>USP42</i> (mouse)	F: 5'-TAAACACCGGGATCGAGAAAGC-3' R: 5'-GCATCAGAGTATGCTCCTGAAAA-3'
<i>USP45</i> (mouse)	F: 5'-CAGACCAAGATCATAACAAGGGC-3' R: 5'-GTCGTTAGGTGAGGAGTGCTT-3'
<i>USP46</i> (mouse)	F: 5'-ATGACTGTCCGAAACATCGCC-3' R: 5'-TTGACCAATCCGAAGTAGTGTT-3'
<i>USP47</i> (mouse)	F: 5'-CGCGTCCGCTGAATGTTTG-3' R: 5'-TGTCACACGATGTCCCGTCT-3'
<i>USP48</i> (mouse)	F: 5'-CAGAGGAAACCCGAATTGCTT-3' R: 5'-GTGGCTCCCAGGTTAGTCAAG-3'
<i>USP49</i> (mouse)	F: 5'-AGTTCCGGGAATGTTTCTGA-3' R: 5'-CTCCTTACTGACAACTCTGCG-3'
<i>USP52</i> (mouse)	F: 5'-TAGCTGATCGGAAGGAACTGA-3' R: 5'-ACCCCACTCATGCTCGTCA-3'
<i>USP53</i> (mouse)	F: 5'-AAGGCATGAGCGAGTTAAACC-3' R: 5'-AAGCAACTGTGATACCCCAAG-3'
<i>USP54</i> (mouse)	F: 5'-TTCTGGAAGCCGAGGTAGTGT-3' R: 5'-GGCGGAAGATGTCCAAGTG-3'
<i>α-SMA</i> (mouse)	F: 5'-GGCTTCGCTGGTGATGATGCTC-3' R: 5'-TCCCTCTTTGCTCTGGGCTTC-3'
<i>Collagen 1</i> (mouse)	F: 5'-GCTCAGAGGCCGAAGGCAACAG-3' R: 5'-GATGGGCAGGCGGGAGGTC-3'
<i>Tgfb1</i> (mouse)	F: 5'-CTCCCGTGGCTTCTAGTGC-3' R: 5'-GCCTTAGTTTGGACAGGATCTG-3'
<i>Tgfb2</i> (mouse)	F: 5'-TTGGATTGCCAGTGCTAACCC-3' R: 5'-AACAAGCCACAGTAACATGACA-3'
<i>TGF-β</i> (mouse)	F: 5'-ACTGGAGTTGTACGGCAGTG-3' R: 5'-GGGGCTGATCCCGTTGATTT-3'
<i>VEGF</i> (mouse)	F: 5'-TATTCAGCGGACTCACCAGC-3' R: 5'-AACCAACCTCCTCAAACCGT-3'
<i>Arg 1</i> (mouse)	F: 5'-ACATTGGCTTGCAGACGTA-3' R: 5'-ATCACCTTGCCAATCCCCAG-3'
<i>YMI</i> (mouse)	F: 5'-CAGGTCTGGCAATTCTTCTGAA-3' R: 5'-GTCTTGCTCATGTGTGTAAGTGA-3'
<i>Fizz1</i> (mouse)	F: 5'-CCTGCTGGGATGACTGCTAC-3' R: 5'-CAGTGGTCCAGTCAACGAGT-3'
<i>IL-6</i> (mouse)	F: 5'-TAGTCCTTCCCTACCCCAATTTCC-3' R: 5'-TTGGTCCTTAGCCACTCCTTC-3'