

SUPPLEMENTARY MATERIALS

Table S1. Primer sequences for recombinant SguaOBP1, OBP2, and CSP1

Primer ID	Primer sequences (5'-3')*
SguaOBP1-S (sense)	AACTGCAGCATATGCTTTTCGGAAGCAGACG
SguaOBP2-S (sense)	TACATATGGCGGATAACGACGATC
SguaCSP1-S (sense)	TACATATGGATCTCAATACTCATG
SguaOBP1-ASf (antisense)	ATATGGATCCTTACTGAAGAACAGCGAAT
SguaOBP2-ASf (antisense)	AATTGAATTCTCACTGTGACATGATCTG
SguaCSP1-ASf (antisense)	AATTGAATTCTTAACATCCAAGAGTTCCA

“*”: Underline sequences are the *NdeI/BamHI* and *NdeI/EcoRI* recognition sites.

Table S2. Diversity of antennal sensilla in Hymenoptera endoparasitoids

Parasitoid Species	Family	Function ¹	Sensilla Type		Ref ⁴
			Sensilla ²	Pore ³	
<i>Microplitis croceipes</i>	Braconidae	Endoparasitoid (specialist)	SP	M	21
			ST	A	23
			SB-I	M/U	
			SB-II	M	
			SC	A	
			SCt	A	
<i>Cotesia marginiventris</i>	Braconidae	Endoparasitoid (generalist)	SP	M	21
			ST	A	
			SB-I	M/U	
			SB-II	M	
			SC	A	
			SCt	A	
<i>Microplitis pallidipes</i>	Braconidae	Endoparasitoid (larvae)	SP	M	17
			ST	A	
			SB-I	A	
			SB-II	M	
			SC	A	
			SCt	A	
<i>Cotesia plutellae</i>	Braconidae	Endoparasitoid (larvae)	SP	M	15
			ST-I	A	
			ST-II	M	
			SC-I, II	N/A	
<i>Cotesia glomerata</i> (L.)	Braconidae	Endoparasitoid (larvae)	SP	M	14
			ST-I	A	
			ST-II	M/U	
			ST-III	M	
			SC-I, II	N/A	

<i>Cotesia rubecula</i> (Marshall)	Braconidae	Endoparasitoid (larvae)	SP	M	14
			ST-I	A	
			ST-II	M/U	
			ST-III	M	
			SC-I, II	N/A	
<i>Cardiochiles nigriceps</i> Viereck	Braconidae	Endoparasitoid (larvae)	SP	M	23
			ST	N/A	
			SB-I-IV	N/A	
<i>Campoletis sonorensis</i> (Cameron)	Braconidae	Endoparasitoid (larvae)	SP	M	23
			SB-I, II	N/A	
<i>Pteromalus puparum</i>	Pteromalidae	Endoparasitoid (pupae)	SP	M	19
			ST-I, II	A	
			ST-III, IV	U	
			ST-V	M	
			SCt	A	
<i>Gryon gallardoii</i> (Brèthes)	Scelionidae	Egg parasitoid	SP	M	16
			ST	N/A	
			SCt-I, II	M/U	
			SS	A	
<i>Trichogramma galloii</i> Zucchi	Trichogrammatidae	Egg parasitoid	SP	M	12
			ST-I	A	
			ST-II	U	
			ST-III	M	
			SB	M	
			SC	U	
			SCt	A	
<i>Trichogramma pretiosum</i> Riley	Trichogrammatidae	Egg parasitoid	SP	M	12
			ST-I	A	
			ST-II	U	
			ST-III	M	
			SB	M	
			SC	U	
			SCt	A	
<i>Anaphes victus</i>	Mymaridae	Egg parasitoid	SP	M	11
			SB	M	
			SCt-I, III, IV	U	
			SCt-II	A	
<i>Anaphes listronoti</i>	Mymaridae	Egg parasitoid	SP	M	11
			SB	M	
			SCt-I, III, IV	U	
			SCt II	A	
<i>Trichogramma Australicum</i>	Trichogrammat	Egg parasitoid	SP-I, II	N/A	10
			ST- I, II, III, IV, V	N/A	

<i>Girault</i>	SB-I, II	N/A
	SC	N/A
	SCt-I, II, III, IV, V	N/A
	SS	N/A
	CS	N/A

“¹”: The potential biological control functions of the listed parasitoids.

“²”: Types of antennal sensilla, including sensilla placodea (SP), sensilla trichodea (ST), sensilla basiconica (SB), sensilla coeloconica (SC), sensilla chaetica (SCt), sensilla styloconica (SS), and campaniform sensilla (CS).

“³”: Types of antennal sensilla based on the presence or absence of pore (s), including multiporous sensilla (M), uniporous sensilla (U), and aporous sensilla (A). N/A: not available.

“⁴”: Original references.