

Gene name	Sf_TR2012b ID	Size (nt)	% identity between orthologs	Signal peptide	Best Blastx	E-value	Status
<b>General, Odorant and Pheromone Binding Proteins</b>							
GOBP1	c7994	899	65.0	N	>gi 121485827 gb ABM54823.1  general odorant-binding protein GOBP1 [Spodoptera litura]	8E-69	Partial
GOBP2	joint2_rep_c3475	650	90.7	Y	>gi 10122071 em CAC06211.1  general odorant-binding protein 2 precursor (GOBP2) [Helicoverpa armigera]	1E-108	Full
OBP1	rep_c2034	694	47.2	Y	>gi 524902670 gb AGR39564.1  odorant binding protein 1, partial [Agrotis ipsilon]	8E-71	Partial
OBP2	joint2_rep_c9255	1387	98.4	Y	>gi 389608671 dbj BAM17945.1  unknown secreted protein [Papilio xuthus]	3E-113	Full
OBP3	rep_c490	1156	87.6	Y	>gi 324103929 gb ADY17884.1  odorant binding protein [Spodoptera exigua]	6E-56	Full
OBP4	rep_c877	808	94.0	Y	>gi 469664301 gb AGH70105.1  odorant binding protein 9 [Spodoptera exigua]	2E-85	Full
OBP5	rep_c2055	649	97.5	Y	>gi 324103925 gb ADY17882.1  odorant binding protein [Spodoptera exigua]	1E-105	Full
OBP6	c15965	578	33.3	N	>gi 528321513 gb AGS36743.1  OBP1 [Sesamia inferens]	2E-54	Partial
OBP7	rep_c571	524	98.6	Y	>gi 469664299 gb AGH70104.1  odorant binding protein 8 [Spodoptera exigua]	1E-93	Full
OBP8	joint2_rep_c7287	1361	92.9	Y	>gi 290965852 gb ADD71058.1  odorant-binding protein [Chilo suppressalis]	6E-116	Full
OBP9	Not found						
OBP10	c11418	845	64.9	Y	>gi 469664305 gb AGH70107.1  odorant binding protein 11 [Spodoptera exigua]	2E-101	Full
OBP11	joint2_rep_c104	710	89.1	Y	>gi 39579195 gb AAR28762.1  odorant-binding protein [Spodoptera frugiperda]	7E-87	Full
OBP12	rep_c504	652	87.2	Y	>gi 324103923 gb ADY17881.1  antennal binding protein [Spodoptera exigua]	8E-80	Full
OBP13	c32728	702	44.9	N	>gi 443429763 gb AGC92793.1  odorant-binding protein 19 [Helicoverpa assulta]	1E-55	Partial
OBP14	joint2_c2406	680	74.5	Y	>gi 469664297 gb AGH70103.1  odorant binding protein 7 [Spodoptera exigua]	1E-73	Full
OBP15	joint2_rep_c3798	512	38.2	N	>gi 519767939 gb AGP03458.1  SexiOBP12 [Spodoptera exigua]	8E-29	Partial
OBP16	Not found						
OBP17	rep_c44968	502	73.4	N	>gi 383215092 gb AFG72998.1  odorant-binding protein 1 [Cnaphalocrocis medinalis]	2E-74	Partial
OBP18	rep_c2988	604	85.3	Y	>gi 328879864 gb AEB54589.1  OBP8 [Helicoverpa armigera]	1E-86	Full
OBP19	Not found						
OBP20	Not found						
OBP22	joint2_rep_c1191	663	57.1	N	>gi 519767930 gb AGP03456.1  SexiOBP10 [Spodoptera exigua]	3E-85	Partial
OBP23	rep_c3716	858	81.1	Y	>gi 39579207 gb AAR28763.1  odorant-binding protein-2 precursor [Spodoptera frugiperda]	5E-79	Full
OBP24	joint2_c2045	719	70.5	N	>gi 39579195 gb AAR28762.1  odorant-binding protein [Spodoptera frugiperda]	1E-55	Partial
OBP25	joint2_c2317	540	63.3	Y	>gi 324103931 gb ADY17885.1  odorant binding protein [Spodoptera exigua]	4E-63	Full
OBP26	rep_c2960	663	87.0	Y	>gi 519767933 gb AGP03457.1  SexiOBP11 [Spodoptera exigua]	1E-94	Full
OBP27	c28274	621	57.9	N	>gi 519767927 gb AGP03455.1  SexiOBP9 [Spodoptera exigua]	2E-45	Partial
OBP28	joint2_c6322	583	65.3	N	>gi 519767945 gb AGP03460.1  SexiOBP14 [Spodoptera exigua]	2E-73	Partial
OBP29	joint2_rep_c3596	552	79.7	N	>gi 324103933 gb ADY17886.1  odorant binding protein [Spodoptera exigua]	1E-91	Partial
OBP30	rep_c4239	666	54.7	N	>gi 392522236 gb AFM77984.1  odorant binding protein 6 [Spodoptera exigua]	6E-82	Partial
OBP31	Not found						
PBP1	joint2_c4216	1230	86.1	Y	>gi 43439928 gb AAS46620.1  pheromone binding protein 1 [Spodoptera exigua]	3E-72	Full
PBP2	rep_c1860	787	95.7	Y	>gi 72169224 gb AAS55551.2  pheromone binding protein 2 [Spodoptera exigua]	3E-91	Full
PBP3	rep_c5672	556	90.2	Y	>gi 266706212 gb ACY78413.1  pheromone binding protein 3 [Spodoptera exigua]	8E-95	Full
No ortholog	rep_c4733	645		Y	>gi 519767924 gb AGP03454.1  SexiOBP8 [Spodoptera exigua]	2E-30	Partial
No ortholog	rep_c7113	608		Y	>gi 519767924 gb AGP03454.1  SexiOBP8 [Spodoptera exigua]	5E-40	Full
No ortholog	c17007	503		Y	>gi 519767924 gb AGP03454.1  SexiOBP8 [Spodoptera exigua]	2E-18	Partial
No ortholog	c18292	449		Y	>gi 443429755 gb AGC92789.1  odorant-binding protein 9 [Helicoverpa assulta]	1E-16	Partial
No ortholog	joint2_rep_c1590	628		N	>gi 519767924 gb AGP03454.1  SexiOBP8 [Spodoptera exigua]	5E-09	Partial
No ortholog	joint2_rep_c2573	691		Y	>gi 328879848 gb AEB54581.1  OBP5 [Helicoverpa armigera]	1E-47	Full
No ortholog	joint2_c5045	2731		N	>gi 512924812 ref XP_004930684.1  PREDICTED: uncharacterized protein LOC101740799 [Bombyx mori]	9E-156	Partial
<b>Chemosensory Proteins</b>							
CSP1	joint2_rep_c612	786	89.8	Y	>gi 552955230 gb AGY49269.1  putative chemosensory protein [Sesamia inferens]	5E-61	Full
CSP2	joint2_rep_c3099	647	99.2	Y	>gi 365919036 gb AEX07265.1  CSP2 [Helicoverpa armigera]	4E-73	Full
CSP3	Not found						

CSP4	joint2_c3581	768	79.1	N	>gi 552955232 gb AGY49270.1  putative chemosensory protein [Sesamia inferens]	1E-68 Partial
CSP5	rep_c3130	873	95.3	Y	>gi 122894084 gb ABM67688.1  chemosensory protein CSP1 [Spodoptera exigua]	2E-75 Full
CSP6	joint2_rep_c2279	479	97.6	Y	>gi 524903217 gb AGR39578.1  chemosensory protein 8 [Agrotis ipsilon]	1E-76 Full
CSP7	joint2_c1683	991	92.5	Y	>gi 524903124 gb AGR39575.1  chemosensory protein 5 [Agrotis ipsilon]	2E-61 Full
CSP8	rep_c4613	664	92.2	Y	>gi 122894086 gb ABM67689.1  chemosensory protein CSP2 [Spodoptera exigua]	3E-67 Full
CSP9	rep_c23815	508	73.8	Y	>gi 63020522 gb AAZ26143.1  chemosensory protein CSP [Spodoptera litura]	3E-48 Full
CSP10	c10036	724	53.4	Y	>gi 112983038 ref NP_001037069.1  chemosensory protein 9 precursor [Bombyx mori]	1E-74 Full
CSP11	joint2_c9626	672	64.7	Y	>gi 13236828 gb AAK14793.1  sensory appendage protein-like protein [Mamestra brassicae]	5E-34 Full
CSP12	joint2_c1394	1032	86.3	Y	>gi 156616773 gb ABU87405.1  chemosensory-like protein [Trichoplusia ni]	4E-31 Full
CSP13	rep_c3399	674	98.4	Y	>gi 365919040 gb AEX07267.1  CSP6 [Helicoverpa armigera]	2E-60 Full
CSP14	joint2_c3078	633	88.3	Y	>gi 524903160 gb AGR39576.1  chemosensory protein 6 [Agrotis ipsilon]	3E-50 Full
CSP15	rep_c4149	691	81.0	Y	>gi 148298809 ref NP_001091781.1  chemosensory protein 15 [Bombyx mori]	5E-21 Full
CSP16	joint2_c2765	609	56.6	Y	>gi 461726423 gb AGH20054.1  chemosensory protein 16, partial [Helicoverpa armigera]	7E-32 Full
CSP17	rep_c28057	364	87.7	Y	>gi 207107800 dbj BAG71921.1  chemosensory protein 13 [Papilio xuthus]	8E-38 Full
CSP17	rep_c475	987	87.7	Y	>gi 207107800 dbj BAG71921.1  chemosensory protein 13 [Papilio xuthus]	1E-55 Full
CSP18	joint2_c9032	547	79.3	Y	>gi 357621531 gb EHJ73331.1  chemosensory protein 12 [Danaus plexippus]	5E-37 Full
CSP19	rep_c601	1264	90.2	Y	>gi 524903017 gb AGR39572.1  chemosensory protein 2 [Agrotis ipsilon]	1E-62 Full
CSP20	rep_c14062	454	86.2	Y	>gi 405117276 gb AFR92094.1  chemosensory protein 10 [Helicoverpa armigera]	2E-56 Partial
No ortholog	c35762	396		Y	>gi 357611229 gb EHJ67380.1  chemosensory protein [Danaus plexippus]	2E-12 Partial
No ortholog	rep_c44394	568		Y	>gi 122894084 gb ABM67688.1  chemosensory protein CSP1 [Spodoptera exigua]	2E-30 Partial
No ortholog	rep_c51916	628		Y	>gi 122894086 gb ABM67689.1  chemosensory protein CSP2 [Spodoptera exigua]	6E-42 Partial
<b>Olfactory receptors</b>		<b>Frameshift</b>				
SlitOR13	c13744	1272	NA	Y	>gb AEY84942.2  putative olfactory receptor 1 [Spodoptera litura]	1E-154 NA
SlitOR6	c24282	422	NA	Y	>gb AGI96748.1  olfactory receptor 6 [Spodoptera litura]	2E-13 NA
SlitOR16	c38866	360	NA	STOP codon	>gb ACL81182.1  putative olfactory receptor 16 [Spodoptera littoralis]	2E-44 NA
SlitOR17	c29382	571	NA	Y	>emb CAG38118.1  putative chemosensory receptor 17 [Heliothis virescens]	2E-25 NA
SlitOR41	c36553	622	NA	Y	>gb AGK90009.1  olfactory receptor 20 [Helicoverpa armigera]	6E-56 NA
SlitOR31	c38188	371	NA	Y	>gb AGY14586.1  putative odorant receptor, partial [Sesamia inferens]	1E-43 NA
SlitOR25	c41185	470	NA	Y	>ref NP_001166621.1  olfactory receptor 64 [Bombyx mori]	7E-22 NA
SlitOR28	c42933	592	NA	Y +STOP codon	>gb AGG08878.1  putative olfactory receptor 12 [Spodoptera litura]	4E-75 NA
SlitOR29	c42948	593	NA	Y +STOP codon	>gb AGY14590.1  putative odorant receptor, partial [Sesamia inferens]	5E-31 NA
SlitOR3	L10788_T1	221	NA	N	>gb AEF32141.1  odorant receptor [Spodoptera exigua]	2E-21 NA
SlitOR2 (ORco)	joint2_c3978	1130	NA	Y	>gb AAW52583.1  putative chemosensory receptor 2 [Spodoptera exigua]	0E+00 NA
<b>Ionotropic receptors</b>		<b>Frameshift</b>				
SlitIR25a	c34962	409	NA	N	>ref XP_004927662.1  PREDICTED: uncharacterized protein LOC101735556 [Bombyx mori]	3E-54 NA
SlitIR25a	c15409	635	NA	N	>gb ADR64679.1  putative chemosensory ionotropic receptor IR25a [Spodoptera littoralis]	5E-38 NA
SlitIR8a	c42892	374	NA	N	>ref XP_004932768.1  PREDICTED: uncharacterized protein LOC101738187 [Bombyx mori]	4E-52 NA
SlitIR41a	c36556	367	NA	N	>gb ADR64681.1  putative chemosensory ionotropic receptor IR41a [Spodoptera littoralis]	5E-12 NA
No Slit ortholog	c26803	708	NA	N	>ref XP_004927609.1  PREDICTED: glutamate receptor ionotropic, kainate 3-like [Bombyx mori ]	2E-12 NA