

TABLE S1

GO term	Cluster frequency	Genome freq. of use	Corrected P-value	FDR	False Pos.	Genes annotated to the term
receptor activity	55 out of 115 genes, 47.8%	82 out of 478 genes, 17.2%	1.23E-18	0.00%	0	ENST00000341449, ENST00000324695, ENST00000301202, ENST00000291759, ENST00000339582, ENST00000326542, ENST00000322110, ENST00000322641, ENST00000321522, ENST00000356069, ENST00000342519, ENST00000321294, ENST00000336077, ENST00000328611, ENST00000328942, ENST00000316219, ENST00000322049, ENST00000251390, ENST00000307165, ENST00000321255, ENST00000307388, ENST00000229454, ENST00000251377, ENST00000300778, ENST00000324602, ENST00000322101, ENST00000245620, ENST00000360233, ENST00000313038, ENST00000322653, ENST00000339924, ENST00000300773, ENST00000355608, ENST00000291864, ENST00000322013, ENST00000329234, ENST00000251372, ENST00000321961, ENST00000358373, ENST00000346587, ENST00000270452, ENST00000322059, ENST00000332043, ENST00000359350, ENST00000358178, ENST00000341617, ENST00000338407, ENST00000314446, ENST00000317121, ENST00000321543, ENST00000328813, ENST00000230083, ENST00000343430, ENST00000322493, ENST00000354583
olfactory receptor activity	28 out of 115 genes, 24.3%	30 out of 478 genes, 6.3%	5.24E-15	0.00%	0	ENST00000322653, ENST00000341449, ENST00000300773, ENST00000322110, ENST00000322641, ENST00000321522, ENST00000356069, ENST00000322013, ENST00000329234, ENST00000321961, ENST00000321294, ENST00000322059, ENST00000328611, ENST00000328942, ENST00000332043, ENST00000359350, ENST00000322049, ENST00000307165, ENST00000307388, ENST00000321255, ENST00000317121, ENST00000321543, ENST00000328813, ENST00000343430, ENST00000322493, ENST00000354583
Transmembrane receptor activity	39 out of 115 genes, 33.9%	53 out of 478 genes, 11.1%	2.61E-14	0.00%	0	ENST00000341449, ENST00000339582, ENST00000322110, ENST00000322641, ENST00000321522, ENST00000356069, ENST00000321294, ENST00000328942, ENST00000316219, ENST00000322049, ENST00000307165, ENST00000307388, ENST00000321255, ENST00000229454, ENST00000300778, ENST00000322101, ENST00000245620, ENST00000360233, ENST00000322653, ENST00000300773, ENST00000355608, ENST00000291864, ENST00000322013, ENST00000251372, ENST00000329234, ENST00000321961, ENST00000338407, ENST00000341617, ENST000003358178, ENST00000321543, ENST00000317121, ENST00000328813, ENST00000359350, ENST00000322493, ENST00000343430, ENST00000354583
signal transducer activity	61 out of 115 genes, 53.0%	115 out of 478 genes, 24.1%	1.44E-13	0.00%	0	ENST00000341449, ENST00000324695, ENST00000301202, ENST00000291759, ENST00000339582, ENST00000326542, ENST00000322110, ENST00000322641, ENST00000321522, ENST00000356069, ENST00000342519, ENST00000321294, ENST00000360966, ENST00000336077, ENST00000328611, ENST00000328942, ENST00000316219, ENST00000359370, ENST00000237313, ENST00000322049, ENST00000251390, ENST00000307165, ENST00000321255, ENST00000307388, ENST00000229454, ENST00000284629, ENST00000251377, ENST00000300778, ENST00000324602, ENST00000322101, ENST00000245620, ENST00000360233, ENST00000313038, ENST00000339924, ENST00000300773, ENST00000321961, ENST00000355608, ENST00000291864, ENST00000322013, ENST00000270452, ENST00000322059, ENST00000332043, ENST00000358373, ENST00000346587, ENST00000322059, ENST00000338407, ENST00000317121, ENST00000321543, ENST000003358178, ENST00000341617, ENST00000338407, ENST00000314446, ENST00000317121, ENST00000321543, ENST00000328813, ENST00000230083, ENST00000343430, ENST00000337706, ENST00000322493, ENST00000265441, ENST00000354583
G-protein coupled receptor activity	31 out of 115 genes, 27.0%	39 out of 478 genes, 8.2%	1.56E-12	0.00%	0	ENST00000322653, ENST00000341449, ENST00000300773, ENST00000339582, ENST00000322110, ENST00000322641, ENST00000321522, ENST00000356069, ENST00000322013, ENST00000329234, ENST00000321294, ENST00000321961, ENST00000358373, ENST00000322059, ENST00000328611, ENST00000328942, ENST00000332043, ENST00000359350, ENST00000322049, ENST00000341617, ENST00000307165, ENST00000307388, ENST00000321255, ENST00000317121, ENST00000321543, ENST00000328813, ENST00000343430, ENST00000322493, ENST00000300778, ENST00000322101, ENST00000354583
rhodopsin-like receptor activity	28 out of 115 genes, 24.3%	35 out of 478 genes, 7.3%	2.86E-11	0.00%	0	ENST00000322653, ENST00000341449, ENST00000300773, ENST00000322110, ENST00000322641, ENST00000321522, ENST00000356069, ENST00000329234, ENST00000321294, ENST00000321961, ENST00000322059, ENST00000328611, ENST00000328942, ENST00000332043, ENST00000359350, ENST00000322049, ENST00000307165, ENST00000307388, ENST00000321255, ENST00000317121, ENST00000321543, ENST00000328813, ENST00000343430, ENST00000322493, ENST00000300778, ENST00000322101, ENST00000354583
binding	38 out of 115 genes, 33.0%	254 out of 478 genes, 53.1%	1.11E-05	0.00%	0	ENST00000335295, ENST00000298910, ENST00000360986, ENST00000359370, ENST00000296869, ENST00000237313, ENST00000292901, ENST00000251390, ENST00000343060, ENST00000300399, ENST00000249007, ENST00000251377, ENST00000357195, ENST00000324602, ENST00000269141, ENST0000003084, ENST00000347957, ENST00000305836, ENST00000333063, ENST00000251372, ENST00000300762, ENST00000238508, ENST00000270452, ENST00000265827, ENST00000292902, ENST00000248983, ENST00000266087, ENST00000265438, ENST00000336906, ENST00000332840, ENST00000261962, ENST00000230083, ENST00000337706, ENST00000265441, ENST00000333337, ENST00000350908, ENST00000292896