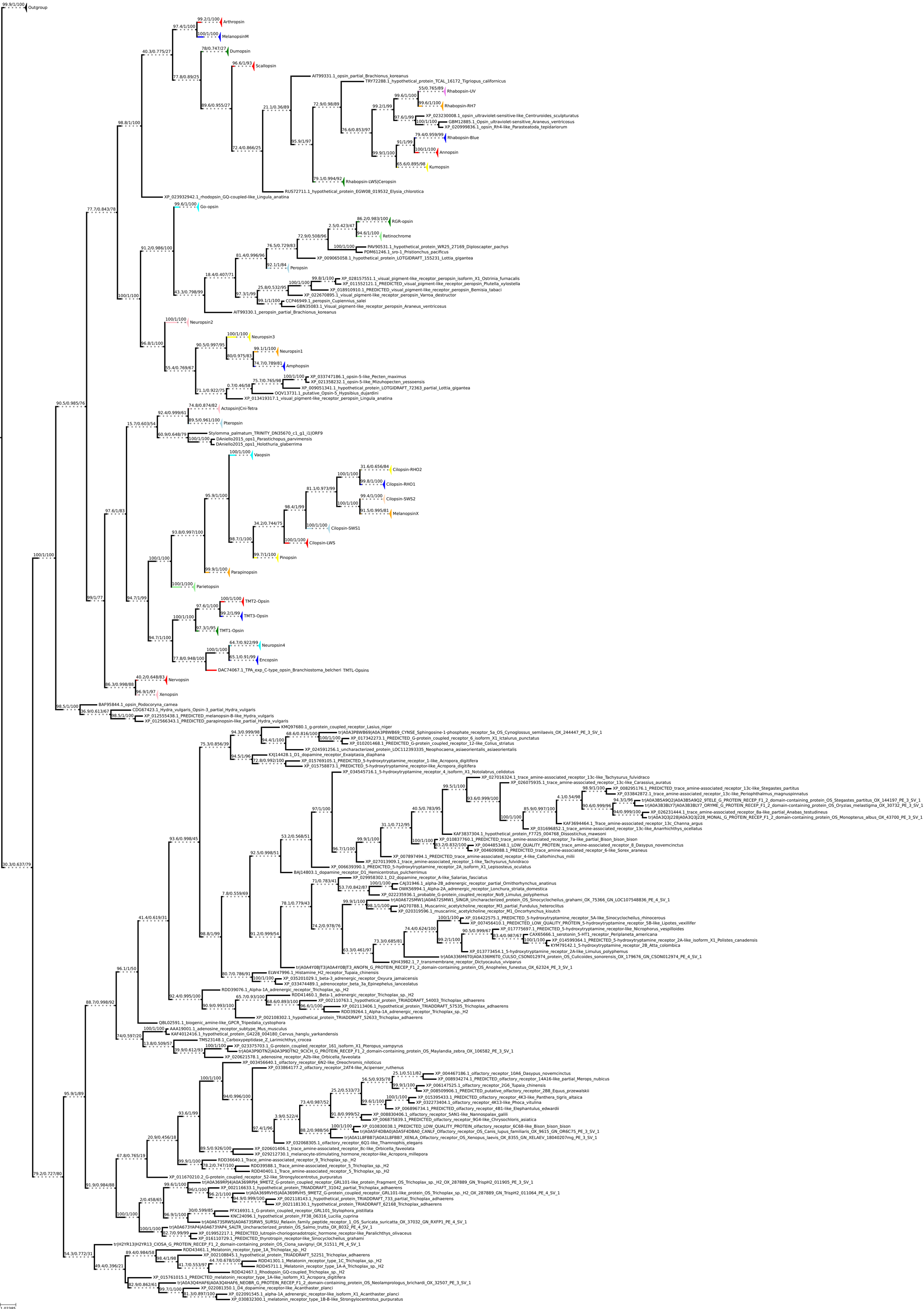
99.9/1/100
Outgroup
99.2/1/100
Arthropsin
97.4/1/100
100/1/100
MelanopsinM
40.3/0.775/27
78/0.747/27
Dumopsin
96.6/1/93
Scallopsin
77.8/0.89/25
AIT99331.1_opsin_partial_Brachionus_koreanus
TRY72288.1_hypothetical_protein_TCAL_16172_Tigriopus_californicus
55/0.765/89
Rhabopsin-UV
99.6/1/100
99.6/1/100
Rhabopsin-RH7
72.9/0.98/89
99.2/1/99
89.6/0.955/27
21.1/0.36/89
97.6/1/99
XP_023230008.1_opsin_ultraviolet-sensitive-like_Centruroides_sculpturatus
100/1/100
GBM12885.1_Opsin_ultraviolet-sensitive_Araneus_ventricosus
XP_020999836.1_opsin_Rh4-like_Parasteatoda_tepidariorum
98.8/1/100
76.6/0.853/97
79.4/0.959/99
Rhabopsin-Blue
91/1/99
95.9/1/97
100/1/100
Annopsin
72.4/0.866/25
99.9/1/100
65.6/0.895/98
Kumopsin
79.1/0.994/92
Rhabopsin-LWS|Ceropsin
RUS72711.1_hypothetical_protein_EGW08_019532_Elysia_chlorotica
XP_023932942.1_rhodopsin_GQ-coupled-like_Lingula_anatina
99.6/1/100
Go-opsin
77.7/0.843/78
86.2/0.983/100
RGR-opsin
2.5/0.423/47
94.6/1/100
Retinochrome
72.9/0.508/96
91.2/0.986/100
76.5/0.729/83
100/1/100
PAV90531.1_hypothetical_protein_WR25_27169_Diploscapter_pachys
PDM61246.1_sro-1_Pristionchus_pacificus
81.4/0.996/96
XP_009065058.1_hypothetical_protein_LOTGIDRAFT_155231_Lottia_gigantea
92.1/1/84
Peropsin
18.4/0.407/71
99.8/1/100
XP_028157551.1_visual_pigment-like_receptor_peropsin_isoform_X1_Ostrinia_furnacalis
XP_011552121.1_PREDICTED_visual_pigment-like_receptor_peropsin_Plutella_xylostella
100/1/100
25.8/0.532/95
XP_018910910.1_PREDICTED_visual_pigment-like_receptor_peropsin_Bemisia_tabaci
100/1/100
43.3/0.798/99
97.3/1/99
XP_022670895.1_visual_pigment-like_receptor_peropsin_Varroa_destructor
99.1/1/100
CCP46949.1_peropsin_Cupiennius_salei
GBN35083.1_Visual_pigment-like_receptor_peropsin_Araneus_ventricosus
AIT99330.1_peropsin_partial_Brachionus_koreanus
100/1/100
Neuropsin2
100/1/100
Neuropsin3
96.8/1/100
90.5/0.997/95
99.1/1/100
Neuropsin1
80/0.975/83
74.7/0.789/81
Amphopsin
55.4/0.769/67
100/1/100
XP_033747186.1_opsin-5-like_Pecten_maximus
XP_021358232.1_opsin-5-like_Mizuhopecten_yessoensis
75.7/0.765/98
XP_009051341.1_hypothetical_protein_LOTGIDRAFT_72363_partial_Lottia_gigantea
0.7/0.46/58
71.1/0.922/75
OQV13731.1_putative_Opsin-5_Hypsibius_dujardini
XP_013419317.1_visual_pigment-like_receptor_peropsin_Lingula_anatina
90.5/0.985/76
74.8/0.874/82
Actopsin|Cni-Tetra
92.4/0.999/61
89.5/0.961/100
Pteropsin
15.7/0.603/54
60.9/0.648/79
Stylomma_palmatum_TRINITY_DN35670_c1_g1_i1|ORF9
100/1/100
DAniello2015_ops1_Parastichopus_parvimensis
DAniello2015_ops1_Holothuria_glaberrima
100/1/100
Vaopsin
31.6/0.656/84
Cilopsin-RHO2
100/1/100
99.8/1/100
Cilopsin-RHO1
81.1/0.973/99
95.9/1/100
99.4/1/100
Cilopsin-SWS2
98.4/1/99
100/1/100
91.5/0.995/81
MelanopsinX
97.6/1/83
34.2/0.744/75
100/1/100
Cilopsin-SWS1
93.8/0.997/100
98.7/1/100
100/1/100
Cilopsin-LWS
100/1/100
99.7/1/100
Pinopsin
99.9/1/100
Parapinopsin
100/1/100
Parietopsin
99/1/77
94.7/1/99
100/1/100
TMT2-Opsin
97.6/1/100
99.2/1/99
TMT3-Opsin
100/1/100
97.3/1/95
TMT1-Opsin
94.7/1/100
64.7/0.922/99
Neuropsin4
100/1/100
65.1/0.91/99
Encopsin
77.8/0.948/100
DAC74067.1_TPA_exp_C-type_opsin_Branchiostoma_belcheri
TMTL-Opsins
40.2/0.648/83
Nervopsin
86.3/0.998/88
96.9/1/97
Xenopsin
BAF95844.1_opsin_Podocoryna_carnea
98.5/1/100
36.9/0.613/67
CDG67423.1_Hydra_vulgaris_Opsin-3_partial_Hydra_vulgaris
98.5/1/100
XP_012555438.1_PREDICTED_melanopsin-B-like_Hydra_vulgaris
XP_012566343.1_PREDICTED_parapinopsin-like_partial_Hydra_vulgaris
KMQ97680.1_g-protein_coupled_receptor_Lasius_niger
94.3/0.999/98
68.6/0.816/100
tr|A0A3P8WB69|A0A3P8WB69_CYNSE_Sphingosine-1-phosphate_receptor_5a_OS_Cynoglossus_semilaevis_OX_244447_PE_3_SV_1
100/1/100
XP_017342273.1_PREDICTED_G-protein_coupled_receptor_6_isoform_X1_Ictalurus_punctatus
XP_010201468.1_PREDICTED_G-protein_coupled_receptor_12-like_Colius_striatus
94.4/1/100
XP_024591256.1_uncharacterized_protein_LOC112393335_Neophocaena_asiaeorientalis_asiaeorientalis
75.3/0.856/39
94.5/1/96
KXJ14428.1_D1_dopamine_receptor_Exaiptasia_diaphana
72.8/0.992/100
XP_015769105.1_PREDICTED_5-hydroxytryptamine_receptor_1-like_Acropora_digitifera
XP_015758873.1_PREDICTED_5-hydroxytryptamine_receptor-like_Acropora_digitifera
XP_034545716.1_5-hydroxytryptamine_receptor_4_isoform_X1_Notolabrus_celidotus
XP_027016324.1_trace_amine-associated_receptor_13c-like_Tachysurus_fulvidraco
99.5/1/100
XP_026075935.1_trace_amine-associated_receptor_13c-like_Carassius_auratus
98.9/1/100
XP_008295176.1_PREDICTED_trace_amine-associated_receptor_13c-like_Stegastes_partitus
XP_033842872.1_trace_amine-associated_receptor_13c-like_Periophthalmus_magnuspinnatus
93.6/0.999/100
4.1/0.54/98
94.3/1/96
tr|A0A3B5A9Q2|A0A3B5A9Q2_9TELE_G_PROTEIN_RECEP_F1_2_domain-containing_protein_OS_Stegastes_partitus_OX_144197_PE_3_SV_1
tr|A0A3B3BLY7|A0A3B3BLY7_ORYME_G_PROTEIN_RECEP_F1_2_domain-containing_protein_OS_Oryzias_melastigma_OX_30732_PE_3_SV_1
90.6/0.999/96
97/1/100
40.5/0.783/95
85.9/0.997/100
94/0.999/100
XP_026231444.1_trace_amine-associated_receptor_8a-like_partial_Anabas_testudineus
tr|A0A3Q3J228|A0A3Q3J228_MONAL_G_PROTEIN_RECEP_F1_2_domain-containing_protein_OS_Monopterus_albus_OX_43700_PE_3_SV_1
100/1/100
KAF3694464.1_Trace_amine-associated_receptor_13c_Channa_argus
31.1/0.712/95
XP_031696852.1_trace_amine-associated_receptor_13c-like_Anarrhichthys_ocellatus
KAF3837304.1_hypothetical_protein_F7725_004768_Dissostichus_mawsoni
53.2/0.568/51
93.6/0.998/45
99.9/1/100
100/1/100
XP_010837760.1_PREDICTED_trace_amine-associated_receptor_7a-like_partial_Bison_bison_bison
83.2/0.832/100
XP_004485348.1_LOW_QUALITY_PROTEIN_trace_amine-associated_receptor_8_Dasypus_novemcinctus
XP_004609088.1_PREDICTED_trace_amine-associated_receptor_6-like_Sorex_araneus
92.5/0.998/51
96.7/1/100
XP_007897494.1_PREDICTED_trace_amine-associated_receptor_4-like_Callorhinchus_milii
XP_027013909.1_trace_amine-associated_receptor_1-like_Tachysurus_fulvidraco
XP_006639390.1_PREDICTED_5-hydroxytryptamine_receptor_2A_isoform_X1_Lepisosteus_oculatus
BAJ14803.1_dopamine_receptor_D1_Hemicentrotus_pulcherrimus
30.3/0.637/79
XP_029958302.1_D2_dopamine_receptor_A-like_Salarias_fasciatus
71/0.783/41
100/1/100
CAJ31946.1_alpha-2B_adrenergic_receptor_partial_Ornithorhynchus_anatinus
53.7/0.842/87
OWK56994.1_Alpha-2A_adrenergic_receptor_Lonchura_striata_domestica
XP_022235936.1_probable_G-protein_coupled_receptor_No9_Limulus_polyphemus
7.8/0.559/69
tr|A0A672SMW1|A0A672SMW1_SINGR_Uncharacterized_protein_OS_Sinocyclocheilus_grahami_OX_75366_GN_LOC107548836_PE_4_SV_1
99.9/1/100
78.1/0.779/43
98.1/1/100
JAQ70788.1_Muscarinic_acetylcholine_receptor_M3_partial_Fundulus_heteroclitus
XP_020319596.1_muscarinic_acetylcholine_receptor_M1_Oncorhynchus_kisutch
41.4/0.619/31
XP_016422575.1_PREDICTED_5-hydroxytryptamine_receptor_5A-like_Sinocyclocheilus_rhinocerous
100/1/100
XP_007456410.1_PREDICTED_LOW_QUALITY_PROTEIN_5-hydroxytryptamine_receptor_5B-like_Lipotes_vexillifer
74.2/0.978/76
74.4/0.624/100
XP_017775697.1_PREDICTED_5-hydroxytryptamine_receptor-like_Nicrophorus_vespilloides
90.5/0.999/67
83.4/0.987/67
CAX65666.1_serotonin_5-HT1_receptor_Periplaneta_americana
98.8/1/99
91.2/0.999/54
99.2/1/100
100/1/100
XP_014599364.1_PREDICTED_5-hydroxytryptamine_receptor_2A-like_isoform_X1_Polistes_canadensis
KYM79142.1_5-hydroxytryptamine_receptor_2B_Atta_colombica
73.3/0.685/81
63.3/0.461/97
XP_013773454.1_5-hydroxytryptamine_receptor_2A-like_Limulus_polyphemus
tr|A0A336M6T0|A0A336M6T0_CULSO_CSON012974_protein_OS_Culicoides_sonorensis_OX_179676_GN_CSON012974_PE_4_SV_1
KJH43982.1_7_transmembrane_receptor_Dictyocaulus_viviparus
tr|A0A4Y0BJT3|A0A4Y0BJT3_ANOFN_G_PROTEIN_RECEP_F1_2_domain-containing_protein_OS_Anopheles_funestus_OX_62324_PE_3_SV_1
96.1/1/50
80.7/0.786/91
ELW47996.1_Histamine_H2_receptor_Tupaia_chinensis
100/1/100
XP_035201029.1_beta-3_adrenergic_receptor_Oxyura_jamaicensis
XP_033474489.1_adrenoceptor_beta_3a_Epinephelus_lanceolatus
RDD39076.1_Alpha-1A_adrenergic_receptor_Trichoplax_sp._H2
92.4/0.995/100
RDD41460.1_Beta-1_adrenergic_receptor_Trichoplax_sp._H2
65.7/0.93/100
88.7/0.998/92
68.6/0.893/100
XP_002110763.1_hypothetical_protein_TRIADDRAFT_54003_Trichoplax_adhaerens
96.6/1/100
XP_002113406.1_hypothetical_protein_TRIADDRAFT_57535_Trichoplax_adhaerens
90.9/0.993/100
RDD39264.1_Alpha-1A_adrenergic_receptor_Trichoplax_sp._H2
XP_002108302.1_hypothetical_protein_TRIADDRAFT_52633_Trichoplax_adhaerens
QBL02591.1_biogenic_amine-like_GPCR_Tripedalia_cystophora
100/1/100
AAA19001.1_adenosine_receptor_subtype_Mus_musculus
KAF4012416.1_hypothetical_protein_G4228_004180_Cervus_hanglu_yarkandensis
74/0.597/20
TMS23148.1_Carboxypeptidase_Z_Larimichthys_crocea
13.8/0.509/57
100/1/100
XP_023375703.1_G-protein_coupled_receptor_161_isoform_X1_Pteropus_vampyrus
39.9/0.612/93
tr|A0A3P9DTN2|A0A3P9DTN2_9CICH_G_PROTEIN_RECEP_F1_2_domain-containing_protein_OS_Maylandia_zebra_OX_106582_PE_3_SV_1
XP_020621578.1_adenosine_receptor_A2b-like_Orbicella_faveolata
XP_003456640.1_olfactory_receptor_6N2-like_Oreochromis_niloticus
XP_033864177.2_olfactory_receptor_2AT4-like_Acipenser_ruthenus
25.1/0.511/82
XP_004467186.1_olfactory_receptor_10A6_Dasypus_novemcinctus
XP_008934274.1_PREDICTED_olfactory_receptor_14A16-like_partial_Merops_nubicus
56.5/0.935/78
100/1/100
99.9/1/100
XP_006147525.1_olfactory_receptor_2G6_Tupaia_chinensis
XP_008509906.1_PREDICTED_putative_olfactory_receptor_2B8_Equus_przewalskii
94/0.996/100
25.2/0.533/73
95.9/1/89
73.4/0.987/52
99.6/1/100
100/1/100
XP_015395433.1_PREDICTED_olfactory_receptor_4K3-like_Panthera_tigris_altaica
XP_032273404.1_olfactory_receptor_4K13-like_Phoca_vitulina
XP_006896734.1_PREDICTED_olfactory_receptor_4B1-like_Elephantulus_edwardii
93.6/1/99
91.8/0.999/52
XP_008830406.1_olfactory_receptor_5AN1-like_Nannospalax_galili
XP_006875839.1_PREDICTED_olfactory_receptor_9G4-like_Chrysochloris_asiatica
3.9/0.522/4
97.4/1/96
100/1/100
XP_010830038.1_PREDICTED_LOW_QUALITY_PROTEIN_olfactory_receptor_6C68-like_Bison_bison_bison
88.2/0.988/56
tr|A0A5F4DBA0|A0A5F4DBA0_CANLF_Olfactory_receptor_OS_Canis_lupus_familiaris_OX_9615_GN_OR6C75_PE_3_SV_1
tr|A0A1L8FBB7|A0A1L8FBB7_XENLA_Olfactory_receptor_OS_Xenopus_laevis_OX_8355_GN_XELAEV_18040207mg_PE_3_SV_1
XP_032068305.1_olfactory_receptor_6Q1-like_Thamnophis_elegans
20.9/0.456/18
89.5/0.926/100
XP_020601406.1_trace_amine-associated_receptor_8c-like_Orbicella_faveolata
XP_029212730.1_melanocyte-stimulating_hormone_receptor-like_Acropora_millepora
67.8/0.765/19
99.9/1/100
RDD36640.1_Trace_amine-associated_receptor_9_Trichoplax_sp._H2
78.2/0.747/100
RDD39588.1_Trace_amine-associated_receptor_5_Trichoplax_sp._H2
RDD40401.1_Trace_amine-associated_receptor_5_Trichoplax_sp._H2
79.2/0.727/80
XP_011670210.2_G-protein_coupled_receptor_52-like_Strongylocentrotus_purpuratus
99.6/1/100
tr|A0A369RPJ4|A0A369RPJ4_9METZ_G-protein_coupled_receptor_GRL101-like_protein_Fragment_OS_Trichoplax_sp._H2_OX_287889_GN_TrispH2_011905_PE_3_SV_1
96/1/100
XP_002116633.1_hypothetical_protein_TRIADDRAFT_31042_partial_Trichoplax_adhaerens
96.2/1/100
tr|A0A369RVH5|A0A369RVH5_9METZ_G-protein_coupled_receptor_GRL101-like_protein_OS_Trichoplax_sp._H2_OX_287889_GN_TrispH2_011064_PE_4_SV_1
2/0.458/65
94.9/0.999/100
XP_002118143.1_hypothetical_protein_TRIADDRAFT_733_partial_Trichoplax_adhaerens
XP_002118130.1_hypothetical_protein_TRIADDRAFT_62168_Trichoplax_adhaerens
100/1/100
96.9/1/100
30/0.599/85
PFX16931.1_G-protein_coupled_receptor_GRL101_Stylophora_pistillata
KNC24096.1_hypothetical_protein_FF38_06316_Lucilia_cuprina
tr|A0A673SRW5|A0A673SRW5_SURSU_Relaxin_family_peptide_receptor_1_OS_Suricata_suricatta_OX_37032_GN_RXFP1_PE_4_SV_1
100/1/100
tr|A0A673YAP4|A0A673YAP4_SALTR_Uncharacterized_protein_OS_Salmo_trutta_OX_8032_PE_4_SV_1
82.7/0.99/99
XP_019952217.1_PREDICTED_lutropin-choriogonadotropic_hormone_receptor-like_Paralichthys_olivaceus
XP_016110729.1_PREDICTED_thyrotropin_receptor-like_Sinocyclocheilus_grahami
tr|H2YR13|H2YR13_CIOSA_G_PROTEIN_RECEP_F1_2_domain-containing_protein_OS_Ciona_savignyi_OX_51511_PE_4_SV_1
54.3/0.772/31
89.4/0.984/58
RDD43461.1_Melatonin_receptor_type_1A_Trichoplax_sp._H2
98.4/1/98
XP_002108845.1_hypothetical_protein_TRIADDRAFT_52251_Trichoplax_adhaerens
41.7/0.553/97
44.7/0.678/100
RDD41301.1_Melatonin_receptor_type_1C_Trichoplax_sp._H2
RDD45711.1_Melatonin_receptor_type_1A-A_Trichoplax_sp._H2
49.4/0.396/21
RDD42467.1_Rhodopsin_GQ-coupled_Trichoplax_sp._H2
XP_015761015.1_PREDICTED_melatonin_receptor_type_1A-like_isoform_X1_Acropora_digitifera
82.9/0.862/61
tr|A0A3Q4HAF6|A0A3Q4HAF6_NEOBR_G_PROTEIN_RECEP_F1_2_domain-containing_protein_OS_Neolamprologus_brichardi_OX_32507_PE_3_SV_1
99.7/1/100
XP_022081350.1_D4_dopamine_receptor-like_Acanthaster_planci
81.3/0.897/100
XP_022091545.1_alpha-1A_adrenergic_receptor-like_isoform_X1_Acanthaster_planci
XP_030832300.1_melatonin_receptor_type_1B-B-like_Strongylocentrotus_purpuratus
1.02385