

Opsin Class	Accession	Sequence
1 Nessopsins	86	FAELPELFAKASVLYNPPLYYSIMNFRFRMLMFLYK
2 Parvopsins	12	QVYPVYFAKSSALWNPNPLYYAISHKFKKALRFE
3 SWS-Facetopsins	355	XIMLPASFCKEVACIDPQYAYAISHPRYRAELQKRPWP
4 UV-Facetopsins	140	ESMIPALFCKIAACIDPPELYAITHPRFRMELEKMLER
5 LWS-Facetopsins	699	XIILWGSLFAKANAYYNPLYYGISHPKYRAALMKKLP
6 Onychopsins	6	YSQLPAYFAKIAAVYNPNPLYYAISHBKRYRAALBKKEP
7 Scallopsins	116	QAEPLMLFAKASAMGNPNPLYYASISHPKFRRAALMKKEP
8 Melanopsins M	362	MNSVPAYIAKASAIHNPIIYAITHPKYRRAAJAKYLP
9 Melanopsins X	192	SKAVPAYIAKASAIYNPFIYAITHMKYRRTLAEKYPC
10 Melanopsins L	4	LQSIIPAVFAKSSAVYNPNPLYYAITHPKFRRAAVKKHIP
11 Arthropopsins	72	QIALPAFFFAKIAAYVPRPLYYGESHPRFRSSYRQYL
12 Lancopsins	21	QYMLQAGSLFAKLSVLLNPNPLYYALSTPRFRMALEK
13 Dumopsins	18	XSMYPHLLAKISTVYNPNPLYYALSHPKFRMKKLEKLE
14 Peropsins	137	MAIIAPLFAKSSSTFYNPCLYVLANKKFRRAALAMFR
15 Astropsins	4	LQMLAPLFAKLSMVLNPNPLYYQMLKKFRSYQTMFF
16 RGR-opsins	187	LRMYPAYLAKITPTENAFYALGNENYRGGIWRQLTG
17 Nemopsins	3	YVVVPVITISREPLLNPNPLYIWCNPRYVPIHKEFTMA
18 Gluopsins	38	LALAPLIAFAEATSPVLYLAEDEBLYRAALLGRMBK
19 Retinochromes	33	QQLPPLFAKSSALVLPAYEYAEPRFRRAALMKKEP
20 Varropsins	25	LILPPLFAKASTXENPNPLYIYELFNPNRLRAGIATL
21 Go-opsins	51	QILPPTMFAKSSCMNPNPLYYCFNENKFRRAALMKKEP
22 Fiskopsins (Opn9/Opn15)	515	VILIPAMFAKSHCMNPNPLYIQIMNBEFRREDVYQMYEG
23 Euthropsins (Opn51/Opn41)	1041	YSVYPTLLAKSSAMYNPNPLYIQVIDEKGLACSMKSG
24 Fibopsins (Opn8/Opn6)	206	YELLPLFAKSSSTXYNPNPLYYIFKKFRREYKQLE
25 Qoshopsins (Opn7/Opn10)	200	AFALPAMFAKSSSTLYNPPLYLLEKPNFRKELQBD
26 Kiropsins	25	LILPPLFAKSSLYNPPLYYFEMNKKFRREYKQLE
27 Tremopsins (Opn61)	172	TSILPBLFAKSSASFYNPLYIYEGMSSKFRKDYQXLP
28 Stranopsins C	75	QATIPAMFAKISSFYNPPLYIYEMMKFRREYKQLE
29 Stranopsins A	22	QATIPALLAKSSALWNPNPLYYAINKQFRRAAFYELP
30 Stranopsins B	34	QATIPALFAKASVLYWNPNPLYIYETNKKFRRAALMKKEP
31 Cnidopsins	62	EXTIHALFAKLSVLLNPNPLYIYCFNENKFRRAALMKKEP
32 Pteropsins	221	QAYIPALFAKSSICYNPNPLYIYGLNTQFRRAAWKKER
33 Annopsins	25	XAMLPAMFAKSSSFYNPNPLYIYVAMNKKFRRAAFVKKLP
34 Livopsins	12	QATIPAMFAKLSCTLYNPPLYIYFLLNKKQFRRAALMKKEP
35 Encephalopsin	133	VATIPSPFFAKSSTAYNPPLYIYIFMNRKFRRCOLLQLL
36 TMT2-Opsins	138	ASVYPSFLAKSSTVINPNPLYIYILMNKKQFRRCOLLFLH
37 TMT3-Opsins	148	ASVYPSFLAKSSTVYNPNPLYIYVLFNNQFRRCOLLFLH
38 TMT1-Opsins	179	ASIPSPFLAKSSTVINPNPLYIYIFMNKKQFRRCOLLFLH
39 TMTL-Opsins	17	AAYYPPLFAKSSSTAYNPPLYIYVAMNNQFRRCOLLFLH
40 Parietopsins	68	YATMPMYFAKTSPVYNPNPLYIYIFSNKKQFRRCOLLFLH
41 Parapinopsins	140	LATYPMYLAKSSTVYNPNPLYIYIFMNRQFRRCOLLFLH
42 Va-Opsins	147	LAAIPAFFSKTAAVYNPNPLYIYVFMNKKQFRRCOLLFLH
43 Cionopsins	4	LGAAPAFFFAKTALTYNPPLYIYGLNKKQFRRCOLLFLH
44 Pinopsins	70	LASLPSPYFSKTATVYNPNPLYIYVFMNKKQFRRCOLLFLH
45 LWS-Okopsins	143	AAALPAYFAKSATLYNPPLYIYVFMNRQFRRCOLLFLH
46 SWS1-Okopsins	153	LVTIPAFFSKSSCYNPPLYIYCFMNRQFRRCOLLFLH
47 SWS2-Okopsins	161	LATIPSPCFSKASTVYNPNPLYIYVLFMNRQFRRCOLLFLH
48 RHO2-Okopsins	157	LMAIPAFFSKSSALYNPNPLYIYVLFMNRQFRRCOLLFLH
49 RHO1-Okopsins	243	FMTIPAFFFAKSSATLYNPPLYIYIFMNRQFRRCOLLFLH
50 Outgroup	1286	QYMLQAGSLFAKLSVLLNPNPLYYALSTPRFRMALEK