

Product datasheet for **MC214652**

Opn5 (NM_181753) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Opn5 (NM_181753) Mouse Untagged Clone
Tag: Tag Free
Symbol: Opn5
Synonyms: Gpr136; Neuropsin; PGR12; TMEM13
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Fully Sequenced ORF: >MC214652 representing NM_181753
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCCTTGAACCACTGCCCTACCTCAGGATGAGCGCCTGCCCACTATCTTCGAGACGAGGACCCTT
 TTGCTTCAAACCTTCTGGGAAGCGGATTTAGTGGCTGGCTTTACCTAACAAATATCGGGATTCTCTC
 TACATTTGGAAATGGGTATGCTCTTATATGCTTCTAGACGCAAGAAGAAGCTGAGACCTGCGGAATA
 ATGACTATCAATTTAGCAGTCTGTGATCTGGGGATATCAGTTGTAGGCAAGCCGTTACCATCATCTCTT
 GCTTCTGCCACCCTGGGTGTTGGCTGGTTGGCTGCCGCTGGTATGGCTGGGCTGGATTTTCTTTGG
 CTGTGGAAGCCTGATTACCATGACTGCTGTCAGCCTGGACCGCTATCTGAAGATCTGTTATCTGTCTTAT
 GGGGTCTGGCTGAAGAGAAAGCATGCCTACATCTGCCTGGCAGTCATCTGGGCTTATGCTTCCTTCTGGA
 CCACCATGCCCTTGGTGGCCTGGGGACTATGCACCTGAGCCCTTCGGAACCTCATGCACCCTGGACTG
 GTGGCTGGCCAGGCTTCAGGTGGGGTTCAGGTGTTTCATCCTGAGCATCCTCTTCTTCTGCCTCCTGCTG
 CCAACGGCTGTGATTGTTTTCTCATATGCTAAGATCATCGCCAAGGTGAAGTCTTCTTCTAAAGAGGTAG
 CCCATTTGACAGTCGAATCCATAGCAGCCATGACTTGGAGTGAAGCTGACCAAGGTGGCAATGCTGAT
 TTGTGCTGGTTTCTGATTGCCTGGATTCTTATGCGGTCGTCTCTGTGTGGTCAGCTTTTGAAGGCCA
 GACTCCATCCCATACAGCTCTCCGTGGTGCCCACTCCTTGCAAAATCAGCAGCGATGTACAATCCAA
 TCATCTACCAGGTCATTGATTACAGATTTGCCTGTTGCCAGGCTGGTGGTTTGGAGGAACGAAGAAGAA
 ATCTTTGGAAGACTTTAGGCTGCATACTGTAACCGCAGTCAGGAAGTCTTCTGCTGTGCTGGAGATCCAT
 CCAGAGAGCAGTTCAGATTTACTAGTCCCATGTTATGGATGGAGAGAGTCACAGTAATGATGGTGACT
 GTGGCAAGAAA**TAA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

Chromatograms:	https://cdn.origene.com/chromatograms/ja3267_c08.zip
Restriction Sites:	Sgfl-Mlul
ACCN:	NM_181753
Insert Size:	1134 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_181753.4 , NP_861418.2
RefSeq Size:	1824 bp
RefSeq ORF:	1134 bp
Locus ID:	353344
UniProt ID:	Q6VZZ7
Cytogenetics:	17 B3
Gene Summary:	G-protein coupled receptor which selectively activates G(i) type G proteins via ultraviolet A (UVA) light-mediated activation in the retina (PubMed:22043319). Preferentially binds the chromophore 11-cis retinal and is a bistable protein that displays emission peaks at 380 nm (UVA light) and 470 nm (blue light) (PubMed:22043319, PubMed:31607531). Required for the light-response in the inner plexiform layer, and contributes to the regulation of the light-response in the nerve fiber layer, via phosphorylated DAT/SLC6A3 dopamine uptake (PubMed:30936473). Involved in local corneal and retinal circadian rhythm photoentrainment via modulation of the UVA light-induced phase-shift of the retina clock (PubMed:26392540, PubMed:30240620). Acts as a circadian photoreceptor in the outer ear and vibrissal pads, via modulation of circadian clock-gene expression in response to violet light during the light-to-dark transition phase and night phase of the circadian cycle (PubMed:31607531). Required in the retina to negatively regulate hyaloid vessel regression during postnatal development via light-dependent OPN5-SLC32A1-DRD2-VEGFR2 signaling (PubMed:30936473). Involved in the light-dependent regulation of retina and vitreous compartment dopamine levels (PubMed:30936473).[UniProtKB/Swiss-Prot Function]