

Product datasheet for **RG222804**

OPN1SW (NM_001708) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	OPN1SW (NM_001708) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	OPN1SW
Synonyms:	BCP; BOP; CBT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG222804 representing NM_001708 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**

ATGAGAAAAATGTCGGAGGAAGAGTTTTATCTGTTCAAAAATATCTCTTCAGTGGGGCCGTGGGATGGGC
 CTCAGTACCACATTGCCCTGTCTGGGCCTTCTACCTCCAGGCAGCTTTCATGGGCACTGTCTTCCTTAT
 AGGGTTCCCACTCAATGCCATGGTGTGGTGGCCACACTGCGCTACAAAAAGTTGCGGCAGCCCCCTCAAC
 TACATTCTGGTCAACGTGTCCTTCGGAGGCTTCTCCTCTGCATCTTCTGTCTTCCCTGTCTTCGTCG
 CCAGCTGTAACGATACTTCGTCTTCGGTCGCCATGTTTGTGCTTGGAGGGCTTCTGGGCACTGTAGC
 AGGTCTGGTTACAGGATGGTCACTGGCCTTCTGGCCTTTGAGCGCTACATTGTCATCTGTAAGCCCTTC
 GGCAACTTCCGCTTCAGCTCCAAGCATGCACTGACGGTGGTCTTGCTACCTGGACCATTGGTATTGGCG
 TCTCCATCCCACCTTCTTTGGCTGGAGCCGGTTCATCCCTGAGGGCCTGCAGTGTTCCTGTGGCCCTGA
 CTGGTACACCGTGGGCACCAATACCGCAGCGAGTCCATACGTGGTTCCTCTTCATCTTCTGCTTCATT
 GTGCCTCTCTCCCTCATCTGCTTCTCTACACTCAGCTGCTGAGGGCCCTGAAAGCTGTTGCAGCTCAGC
 AGCAGGAGTCAGCTACGACCCAGAAGGCTGAACGGGAGGTGAGCCGCATGGTGGTGTGATGGTAGGATC
 CTTCTGTGTCTGCTACGTGCCCTACGCGGCCTTCGCCATGTACATGGTCAACAACCGTAACCATGGGCTG
 GACTTACGGCTTGTCAACATTCCTTCTTCTTCCAAGAGTGCTTGCATCTACAATCCCATCATCTACT
 GCTTCATGAATAAGCAGTTCCAAGCTTGATCATGAAGATGGTGTGGGAAGGCCATGACAGATGAATC
 CGACACATGCAGCTCCAGAAAAAGAGTTTCTACTGTCTCGTCTACCAAGTTGGCCCCAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA


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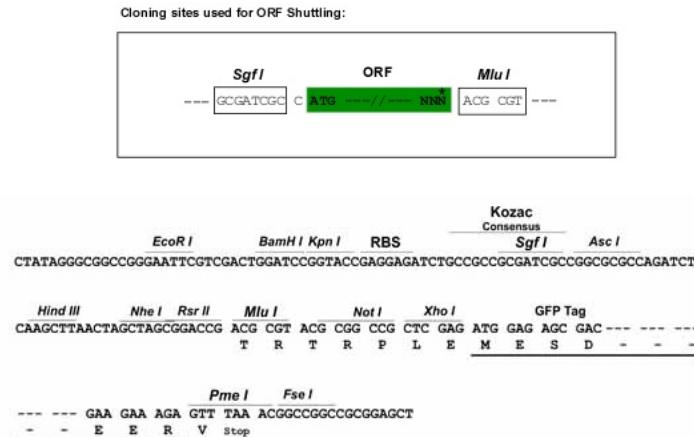
Protein Sequence: >RG222804 representing NM_001708
 Red=Cloning site Green=Tags(s)

MRKMSEEEFYLFKNISSVGPWDGPQYHIAPVWAFYLQAAFMTVFLIGFPLNAMVLVATLRYKKLRQPLN
 YILVNVSFGGFLLCIFSVFPVFVASCNGYFVFGRHVCALEGFLGTVAGLVGWSLAFLAFERYIVICKPF
 GNFRFSSKHALTVVLATWTIGIGVSIPFFGWSRFIPEGLQCSCGPDWYTVGTYRSESYTWFLFIFCFI
 VPLSLICFSYTLRLALKAVAAQQQESATTQKAEREVSRMVVMVSGSFCVCYVPYAAFAMVMVNNRHHGL
 DLRLVTIPSFSSKACIYNPIIYCFMNKQFQACIMKMVCGKAMTDESDTCSSQKTEVSTVSSTQVGPN

TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001708

ORF Size: 1044 bp

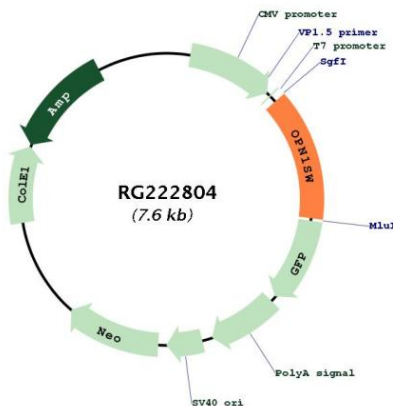
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	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:	<u>NM_001708.2, NP_001699.1</u>
RefSeq Size:	1101 bp
RefSeq ORF:	1047 bp
Locus ID:	611
UniProt ID:	<u>P03999</u>
Cytogenetics:	7q32.1
Protein Families:	Druggable Genome, Transmembrane
Gene Summary:	This gene belongs to the G-protein coupled receptor 1 family, opsin subfamily. It encodes the blue cone pigment gene which is one of three types of cone photoreceptors responsible for normal color vision. Defects in this gene are the cause of tritan color blindness (tritanopia). Affected individuals lack blue and yellow sensory mechanisms while retaining those for red and green. Defective blue vision is characteristic. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG222804