

## Product datasheet for **SC315426**

### Opn1mw (OPN1MW2) (NM\_001048181) Human Untagged Clone

#### Product data:

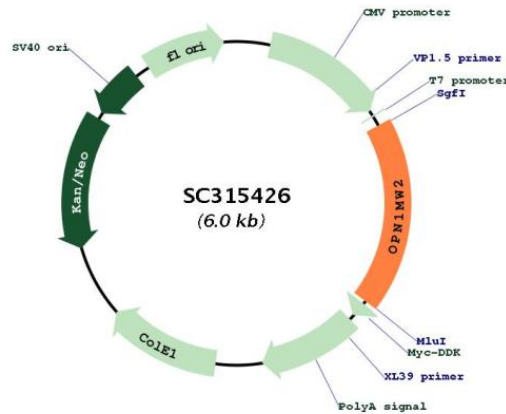
Product Type:	Expression Plasmids
Product Name:	Opn1mw (OPN1MW2) (NM_001048181) Human Untagged Clone
Tag:	Tag Free
Symbol:	OPN1MW2
Synonyms:	GOP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC315426 representing NM_001048181. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTGTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGCCAGCAGTGGAGCCTCCAAGGCTCGCAGGCCGCCATCCGCAGGACAGCTATGAGGACAGCACC
CAGTCCAGCATCTTACCTACACCAACAGCAACTCCACCAGAGGCCCTTCAAGGCCCGAATTACCAC
ATCGCTCCAGATGGGTGTACCACCTCACCAGTGTCTGGATGATCTTTGTGGTCATTGCATCCGTCTTC
ACAAATGGGCTTGTGCTGGCGGCCACCATGAAGTTCAAGAAGCTGCGCCACCCGCTGAATGGATCCTG
GTGAACCTGGCGGTGCTGACCTGGCAGAGACCGTCATCGCCAGCACTATCAGCGTTGTGAACAGGTC
TATGGCTACTTCTGCTGGGCCACCTATGTGTGTCCTGGAGGGCTACACCGTCTCCCTGTGTGGGATC
ACAGGTCTCTGGTCTCTGCCATCATTTCTGGGAGAGATGGATGGTGGTCTGCAAGCCCTTTGGCAAT
GTGAGATTTGATGCCAAGCTGGCCATCGTGGGCATTGCCTTCTCCTGGATCTGGGCTGCTGTGTGGACA
GCCCGGCCATCTTTGGTTGGAGCAGGTAAGTGGCCACGGCCTGAAGACTTTCATGCGGCCAGACGTG
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CCTCAGCATCATCGTCTCTGCTACCTCAAGTGTGGTGGCCATCCGAGCGGTGGCAAAGCAGCAG
AAAGAGTCTGAATCCACCAGAAGGCAGAGAAGGAAGTACGCGCATGGTGGTGGTATGGTCTCTGGCA
TTCTGCTTCTGCTGGGACCCACGCTTCTTCGATGCTTTGCTGCTGCCAACCTGGTACCCCTTC
CACCTTTGATGGCTGCCCTGCCGGCCTTCTTTGCCAAAAGTGCCACTATCTACAACCCGTTATCTAT
GTCTTTATGAACCGGCAGTTTCGAAACTGCATCTTGACAGCTTTTCGGGAAGAAGGTTGACGATGGCTCT
GAATCTCCAGCGCCTCCAAAACGGAGGTCTCATCTGTGTCCTCGGTATCGCCTGCATGATGA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

Restriction Sites: SgfI-MluI



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**Plasmid Map:**


**ACCN:** NM\_001048181

**Insert Size:** 1095 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).

**OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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:** [NM\\_001048181.2](#)

**RefSeq Size:** 1283 bp

**RefSeq ORF:** 1095 bp

**Locus ID:** 728458

UniProt ID: [P0DN77](#)

Cytogenetics: Xq28

Protein Families: Druggable Genome, Transmembrane

MW: 40.6 kDa

**Gene Summary:** This gene encodes for a light absorbing visual pigment of the opsin gene family. The encoded protein is called green cone photopigment or medium-wavelength sensitive opsin. Opsins are G-protein coupled receptors with seven transmembrane domains, an N-terminal extracellular domain, and a C-terminal cytoplasmic domain. The long-wavelength opsin gene and multiple copies of the medium-wavelength opsin gene are tandemly arrayed on the X chromosome and frequent unequal recombination and gene conversion may occur between these sequences. X chromosomes may have fusions of the medium- and long-wavelength opsin genes or may have more than one copy of these genes. Defects in this gene are the cause of deutanopic colorblindness. [provided by RefSeq, Mar 2009]