

## Product datasheet for RC219287

### OPN1MW (NM\_000513) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	OPN1MW (NM_000513) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	OPN1MW
Synonyms:	CBBM; CBD; COD5; GCP; GOP; OPN1MW1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC219287 representing NM_000513 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCAGCAGTGGAGCCTCCAAAGGCTCGCAGGCCGCCATCCGCAGGACAGCTATGAGGACAGCACCC  
AGTCCAGCATCTCACCTACCAACAGCAACTCCACCAGAGGCCCTTCGAAGGCCGAATTACCACAT  
CGCTCCAGATGGGTGTACCACCTACCAGTGTCTGGATGATCTTTGGTTCATTGCATCCGTTTTACA  
AATGGCTTTGTGCTGGCGCCACCATGAAGTTCAGAAGCTGCGCCACCCGCTGAACTGGATCCTGGTGA  
ACCTGGCGGTGCTGACCTGGCAGAGACCGTCATCGCCAGCACTATCAGCGTTGTGAACCAGGTCTATGG  
CTACTTGTGCTGGGCCACCCTATGTGTGCTCGGAGGGCTACACCGTCTCCCTGTGGGATCACAGGT  
CTCTGGTCTCTGGCCATCATTTCTGGGAGAGATGGATGGTGGTCTGCAAGCCCTTTGGCAATGTGAGAT  
TTGATGCCAAGCTGGCCATCGTGGGCATTGCCCTCTCCTGGATCTGGGCTGCTGTGTGGACGCCCGCC  
CATCTTTGGTTGGAGCAGGACTGGCCACCGCCTGAAGACTTCATGCGGCCAGACGTGTTACAGCGGC  
AGCTCGTACCCCGGGTGCAGTCTTACATGATTGTCTCATGGTACCTGCTGCATACCCCACTCAGCA  
TCATCGTCTCTGCTACCTCAAGTGTGGCTGGCCATCCGAGCGGTGGCAAAGCAGCAGAAAAGAGTCTGA  
ATCCACCAGAAGGCAGAGAAGGAAGTGACGCGCATGGTGGTGGTATGGTCTGGCATTCTGCTCTGCG  
TGGGACCATAACGCTTCTTCGATGCTTTGCTGCTGCCAACCTGGCTACCCCTCCACCCTTTGATGG  
CTGCCCTGCCGGCTTCTTTGCCAAAAGTGCCACTATCTACAACCCGTTATCTATGCTTTATGAACCG  
GCAGTTTCGAAACTGCATCTTGACGCTTTTCGGGAAGAAGGTTGACGATGGCTCTGAACTCTCCAGCGCC  
TCCAAAACGGAGGTCTCATCTGTGCTCCTCGGTATCGCCTGCA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC219287 representing NM\_000513  
 Red=Cloning site Green=Tags(s)

MAQQWSLQRLAGRHPQDSYEDSTQSSIFTYTNSNSTRGPFEGPNYHIAPRWVYHLTSVVMIFVVIASVFT  
 NGLVLAATMKFKKLRHPLNWILVNLAVADLAETVIASTISVNVQVYGYFVLGHPMCVLEGYTVSLCGITG  
 LWSLAIISWERWMVVCKPFGNVRFDAKLAIVGIAFSWIWAAVWTAPPIFGWSRYWPHGLKTS CGPDVFSG  
 SSYPGVQSYMIVLMTCCITPLSIIIVLCYLQVWLAI RAVAKQQKESESTQKAEKEVTRMVMVMLAFCFC  
 WGPYAFFACFAAANPGYPFHPLMAALPAFFAKSATIYNPVIYVFMNRQFRNCILQLFGKKVDDGSELSSA  
 SKTEVSSVSSVSPA

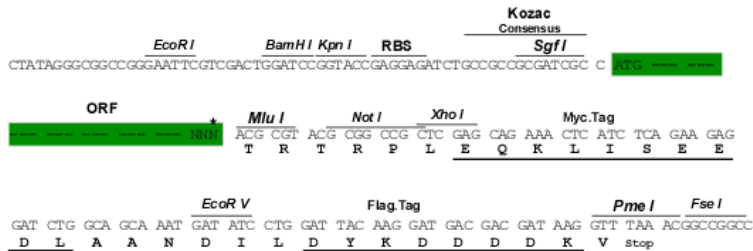
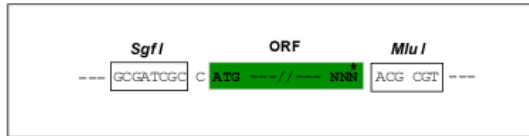
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk8001\\_a10.zip](https://cdn.origene.com/chromatograms/mk8001_a10.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

ACCN: NM\_000513

ORF Size: 1092 bp

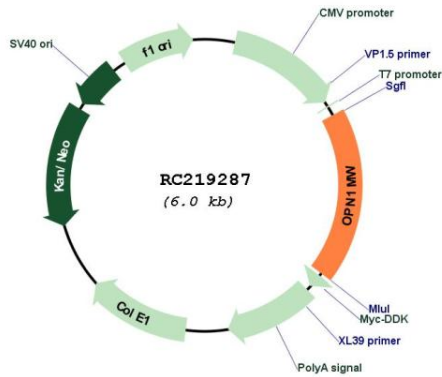
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

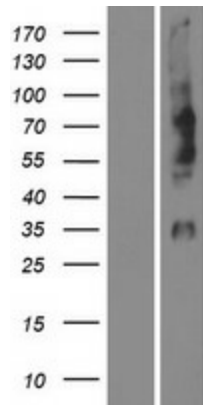
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_000513.1, NP_000504.1</u>
<b>RefSeq Size:</b>	1095 bp
<b>RefSeq ORF:</b>	1095 bp
<b>Locus ID:</b>	2652
<b>UniProt ID:</b>	<u>P0DN77</u>
<b>Cytogenetics:</b>	Xq28
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>MW:</b>	40.4 kDa
<b>Gene Summary:</b>	<p>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]</p>

Product images:



Circular map for RC219287



Western blot validation of overexpression lysate (Cat# [LY424671]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219287 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).