

Product datasheet for **RG224868**

OPN1LW (NM_020061) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	OPN1LW (NM_020061) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	OPN1LW
Synonyms:	CBBM; CBP; COD5; RCP; ROP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG224868 representing NM_020061 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCAGCAGTGGAGCCTCAAAGGCTCGCAGGCCGCCATCCGCAGGACAGCTATGAGGACAGCACCC
AGTCCAGCATCTCACCTACACCAACAGCAACTCCACCAGAGGCCCTTCGAAGGCCGAATTACCACAT
CGCTCCAGATGGGTGTACCACCTACCAGTGTCTGGATGATCTTTGGTCACTGCATCCGTCTTACA
AATGGCTTGTGCTGGCGCCACCATGAAGTCAAGAAGCTGCGCCACCCGCTGAACTGGATCCTGGTGA
ACCTGGCGGTGCTGACCTAGCAGAGACCGTCATCGCCAGCACTATCAGCATTGTGAACAGGTCTCTGG
CTACTTGGTGTGGGCCACCCTATGTGTGCTCGGAGGGCTACACCGTCTCCCTGTGGGATCACAGGT
CTCTGGTCTCTGGCCATCATTTCTGGGAGAGGTGGCTGGTGGTGTGCAAGCCCTTTGGCAATGTGAGAT
TTGATGCCAAGCTGGCCATCGTGGGCATTGCCCTCTCCTGGATCTGGTCTGCTGTGTGGACGCCCGCC
CATCTTTGGTGGAGCAGGACTGGCCACCGCCTGAAGACTTCATGCGGCCAGACGTGTTACAGCGGC
AGCTCGTACCCCGGGTGCAGTCTTACATGATTGTCTCATGGTCACTGCTGCATCCCACCTCGCTA
TCATCATGCTCTGCTACCTCAAAGTGTGGCTGGCCATCCGAGCGGTGGCAAAGCAGCAGAAAGAGTCTGA
ATCCACCAGAAGGCAGAGAAGGAAGTGACGCGCATGGTGGTGGTATGATCTTTGCGTACTGCTGTGC
TGGGACCCTACACCTTCTCGCATGCTTTGCTGCTGCCAACCTGGTTACGCCTCCACCCTTTGATGG
CTGCCCTGCCGGCTACTTTGCCAAAAGTGCCACTATCTACAACCCGTTATCTATGCTTTATGAACCG
GCAGTTTCGAAACTGCATCTTGACGCTTTTCGGGAAGAAGGTTGACGATGGCTCTGAACTCTCCAGCGCC
TCCAAAACGGAGGTCTCATCTGTGCTCCTCGGTATCGCCTGCA

ACGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG224868 representing NM_020061
 Red=Cloning site Green=Tags(s)

MAQQWSLQRLAGRHPQDSYEDSTQSSIFTYTNSTRGPFEGPNYHIAPRWVYHLTSVWMIFVVTASVFT
 NGLVLAATMKFKKLRHPLNWILVNLAVADLAETVIASTISIVNQVSGYFVLGHPMCVLEGYTVSLCGITG
 LWSLAIISWERLWLVCKPFGNVRFDAKLAIVGIAFSWIWSAVWTAPPIFGWSRYWPHGLKTS CGPDVFSG
 SSYPGVQSYMIVLMVTCCIPLAIIMLCYLQVWLAI RAVAKQQKESESTQKAEKEVTRMVMVIMIFAYCVC
 WGPYTTFFACFAAANPGYAFHPLMAALPAYFAKSATIYNPVIYVFMNRQFRNCILQLFGKKVDDGSELSSA
 SKTEVSSVSSVSPA

TRTRPLE - GFP Tag - V

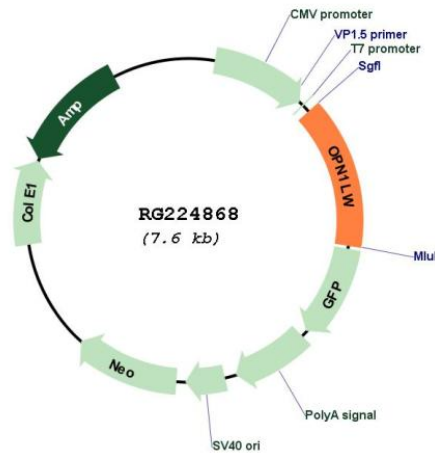
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:

NM_020061

ORF Size:	1092 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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:	<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_020061.4
RefSeq Size:	1356 bp
RefSeq ORF:	1095 bp
Locus ID:	5956
Cytogenetics:	Xq28
Protein Families:	Druggable Genome, Transmembrane
Gene Summary:	<p>This gene encodes for a light absorbing visual pigment of the opsin gene family. The encoded protein is called red cone photopigment or long-wavelength sensitive opsin. Opsins are G-protein coupled receptors with seven transmembrane domains, an N-terminal extracellular domain, and a C-terminal cytoplasmic domain. This gene and 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 partial, protanopic colorblindness. [provided by RefSeq, Jul 2008]</p>