

## Product datasheet for **MG225286**

### Opn4 (NM\_013887) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Opn4 (NM_013887) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Opn4
Synonyms:	1110007J02Rik; Gm533
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG225286 representing NM\_013887  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGACTCTCCTTCAGGACCAAGAGTCTTGTCAAGCTTAAGTCAAGGATCCAGCTTCACAACCAGTCTCTG  
 CCCTGCAAGGCATTTGGAACGGCACTCAGAACGCTCCGTAAGAGCCAGCTTCTCTGTTAGCCCCAC  
 GACATCTGCACATCAGGCTGCTGCTGGGTCCCTTCCACAGTCGATGTCAGACCATGCTCACTAT  
 ACCCTAGGCACGGTGATCCTGCTGGTGGGACTCACAGGGATGCTGGGCAATCTGACGGTCACTACACCT  
 TCTGCAGGAACAGAGGCCTGCGGACACCAGCAAACATGTTCAATCAACCTCGCAGTCAGCGACTTCT  
 CATGTCAGTCACTCAGGCCCGGTCTTCTTTGCCAGCAGCCTCTACAAGAAGTGGCTCTTTGGGGAGACA  
 GGTTCGAGTTCTATGCCTTCTGCGGGGTGTCTTTGGCATCACTTCCATGATCACCTGACAGCCATAG  
 CCATGGACCGCTATCTGGTGATCACACGTCACCTGGCCACCATCGGCAGGGGATCCAAAAGACGAACGGC  
 ACTCGTCTGCTAGGCGTCTGGCTTTATGCCCTGGCTGGAGTCTGCCACCTTTCTTTGGTTGGAGTGCC  
 TAGCTGCCCGAGGGGCTGCTGACATCCTGCTCCTGGGACTACATGACCTTACACCCAGGTGCGTGCCT  
 ACACCATGCTGCTCTTCTGCTTTGTCTTCTTCTCCCTGCTCATCATCATCTTCTGCTACATCTTCTCAT  
 TTTAGGGCCATCCGAGAGACAGGCCGGGCTGTGAGGGTGGGTGAGTCCCCTCTGCGGCAGAGGCGG  
 CAGTGGCAGCGGCTGCAGAGTGAAGATGGCCAAGTGCAGTCACTGATTGTCATTCTTCTCTTCTGTC  
 TGTCTGGGCTCCCTACTCCACTGTGGCTCTGGTGGCCTTTGCTGGATACTCGCACATCTGACGCCCTA  
 CATGAGCTCGGTGCCAGCCGTCATCGCCAAGGCTTCTGCCATCCCAATCCCATTATCTACGCCATCACT  
 CACCCCAAGTACAGGGTGGCCATTGCCAGCACCTGCCTTGCCTTGGGGTGTCTCGGTGATCAGGCC  
 AGCGCAGCCACCCCTCCCTCAGCTACCGCTCTACCCACCGTCCACATTGAGCAGCCAGTCTCAGACCT  
 CAGCTGGATCTCTGGACGGAAGCGTCAAGAGTCCCTGGGTTCTGAGAGTGAAGTGGGCTGGACAGACACA  
 GAAACAACCGCTGCATGGGGAGCTGCCAGCAAGCAAGTGGACAGTCTTCTGCAGTCAGAACCTAGAAG  
 ATGGAGAACTCAAGGCCTTCCAGCCCCAGGTACAGAGATCTAAGACTCCCAAGGTGCCTGGACCCAG  
 TACCTGCCGCCATGAAAGGACAGGGAGCCAGGCAAGTAGCCTAAGGGGTGACCAGAAAGGCAGGCTT  
 GCTGTGTGCACAGGCCTCTCAGAGTGTCCCATCCCATACATCCAGTTTCCCTTGTCTTCTAGAGG  
 ATGATGTGACTCTCAGACATCTG

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>MG225286 representing NM\_013887  
 Red=Cloning site Green=Tags(s)

MDSPSGPRVLSLTLQDPSFTTSPALQGIWNGTQNVSVRAQLLSVSPPTSAHQAAAWVPFPTVDVDPDAH  
 YTLGTVILLVGLTGMLGNLTVIYTFCRNRLRTPANMFIINLAVSDFLMSVTQAPVFFASSLYKKWLFGET  
 GCFEYAFCGAVFGITSMITLTAIAMDRLVITRPLATIGRGSKRRTALVLLGVWLYALAWSLPPFFGWSA  
 YVPEGLLTSCSWDYMTFTPQVRAYTMLLFCVFVFLPLLIIFCYIFIFRAIRETGRACEGCGESPLRQRR  
 QWQRLQSEWKMAKVALIVILLFVLSWAPYSTVALVAFAGYSHILTPYMSSVPAVIAKASAIHNPIIYAIT  
 HPKYRVAIAQHLPLGLVLLGVSGQRSHPSLSYRSTHRSTLSSQSSDLSWISGRKRQESLGESEVGTWDT  
 ETAAWGAQQASGQSFCSQNLLEDGELKASSPQVQRSKTPKVPGPSTCRPMKGQGARPSSLRGDQKGR  
 AVCTGLSECPHPHTSQFPLAFLEDDVTLRHL

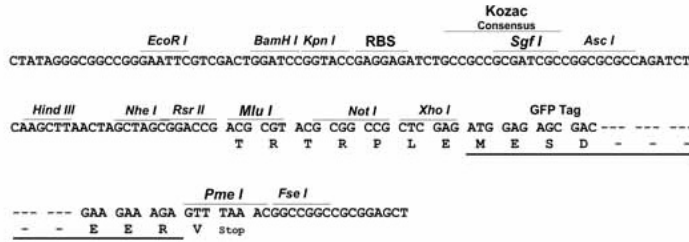
**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

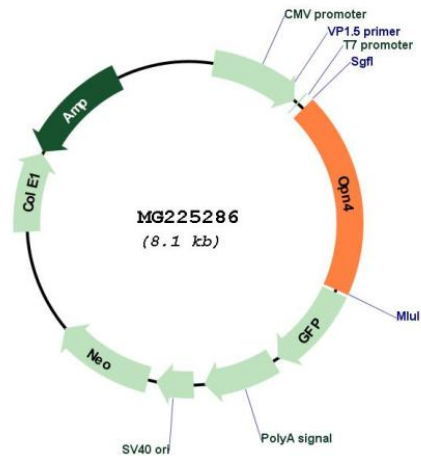
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



<b>ACCN:</b>	NM_013887
<b>ORF Size:</b>	1563 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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>	<a href="#">NM_013887.2</a> , <a href="#">NP_038915.1</a>
<b>RefSeq Size:</b>	2156 bp
<b>RefSeq ORF:</b>	1566 bp
<b>Locus ID:</b>	30044
<b>UniProt ID:</b>	<a href="#">Q9QXZ9</a>
<b>Cytogenetics:</b>	14 B
<b>Gene Summary:</b>	Photoreceptor required for regulation of circadian rhythm. Contributes to pupillar reflex and other non-image forming responses to light. May be able to isomerize covalently bound all-trans retinal back to 11-cis retinal.[UniProtKB/Swiss-Prot Function]