

Product datasheet for **RG218759**

Prol1 (OPRPN) (NM_021225) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Prol1 (OPRPN) (NM_021225) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Prol1
Synonyms:	BPLP; opiorphin; PRL1; PROL1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG218759 representing NM_021225 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**CGATCGCC**

ATGAAATTAACCTTTCTTCTGGCCTGTTGGCTCTTATTTTCATGTTTCACACCCAGTGAGAGTCAAAGAT
TCTCCAGAAGACCATATCTACCTGGCCAGCTGCCACCACCTCCACTCTACAGCCAAGATGGGTTCCACC
AAGTCCCCACCTCCCTATGACTCAAGACTTAATTCACCACTTTCTTCCCTTTGTCCAGGGCGAGTT
CCACCATCTTCTTCTCTCGATTTAGCCAAGCAGTCATTCTATCTCAACTCTTCCATTGGAATCTATTA
GACAACCTCGACTCTTCCGGTTATCCAAACCTACATTTCCACTAAGACCTTACTATGTAGGACCTAT
TAGGATATTAACCCCAATTTCTCCTATTCTTTTTTTCTTGCTATTTACCTTCTATCTCTAACCTT
GAGCCCCAAATAAACATCACCACCGCAGATACAACAATCACCACAAATCCCCCACCCTGCAACAGCAA
CCACCAGCACTTCCACAAAACCCACAATGACGATCAGCTCCTCAACAGTACCTATCTCTTCAACACCAGA
GCCTGCCACCTCCATATCAGCAGCAACCCCGCAGCATCTACTGAAAATACTACTCAAATTCGCGCAAC
CGTCTCACACAGTATTGCTCAATGCCACTGTCCAAGTTACGACTTCCAACCAAATATATTAAGCAGCC
CAGCCTTTAAAGTTTTGGCAAAAACCTTTGCCATTTTGGT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG218759 representing NM_021225
 Red=Cloning site Green=Tags(s)

MKLTFFFLGLLALISCFTPSESQRFSRRPYLPGQLPPPPLYRPRWVPPSPPPPYDSRLNSPLSLPFVPGRV
 PPSSFSRFSQAVILSQLFPLESIRQPLRFPGYPNLHFPLRPYYVGPRIKLPFPFPIFFFLAIYLPISNP
 EPQINITTADTTITNPPPTTATATTSTSTKPTMTISSSTVPISSSTPEPATSSISAATPAASTENTTQILAN
 RPHTVLLNATVQVTTSNQITLSSPAFKSFWQKLF AIFG

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_021225

ORF Size: 744 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: [NM_021225.5](#)

RefSeq Size: 1060 bp

RefSeq ORF: 747 bp

Locus ID: 58503

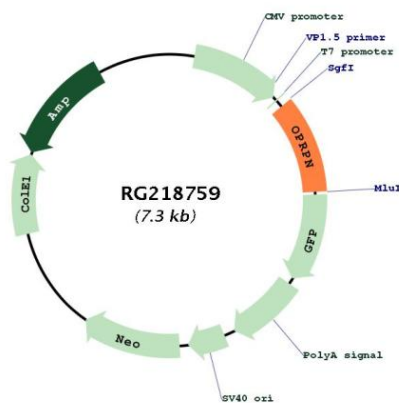
UniProt ID: [Q99935](#)

Cytogenetics: 4q13.3

Protein Families: Secreted Protein

Gene Summary: This gene encodes a member of the proline-rich protein family. The encoded protein has multiple proposed functions, including roles in pain suppression, penile erection, and protection of the eye surface. The QRFSR pentapeptide, known as opiorphin, is derived from the N-terminal of this protein. Opiorphin inhibits the enkephalin-inactivating peptidases neprilysin and aminopeptidase N, and this activity is thought to reduce sensitivity to painful stimuli by effecting enkephalin-related activation of opioid-dependent pathways. Opiorphin may also act as an anti-depressant. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Nov 2014]

Product images:



Circular map for RG218759