

## Product datasheet for **SC333750**

### **Prol1 (OPRPN) (NM\_001302807) Human Untagged Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Prol1 (OPRPN) (NM_001302807) Human Untagged Clone
Tag:	Tag Free
Symbol:	OPRPN
Synonyms:	BPLP; opiorphin; PRL1; PROL1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC333750 representing NM_001302807. Blue=Insert sequence Red=Cloning site Green=Tag(s)

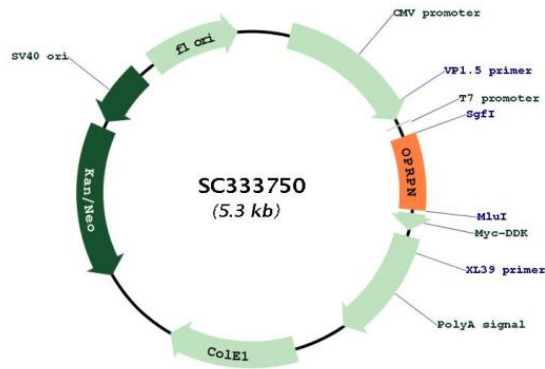
```
GCTCGTTTAGTGAACCGTCAGAATTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAAATTAACTTTCTTCTGGCCTGTTGGCTTTATTTTCATGTTTCACATCAGCGTTGCTAAGCAT
GAAGGGACAGTGGACTGCAGGAAGAGGACACAGGGCAGCCAGTGAGAGTCAAAGATTCTCCAGAAGAC
CATATCTACCTGGCCAGCTGCCACCACCTCCACTCTACAGGCCAAGATGGGTTCCACCAAGTCCCCAC
CTCCCTATGACTCAAGACTTAATTCACCACCTTCTCTCCCTTTGTCCCAGGGCGAGTTCACCATCTT
CTTTCTCTCGATTTAGCCAAGCAGTCATTCTATCTCAACTTTTCCATTGGAATCTATTAGACAACCTC
GACTCTTCCGGTTATCCAAACCTACATTTCCCATAA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

Restriction Sites: Sgfl-MluI



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**Plasmid Map:**



**ACCN:** NM\_001302807

**Insert Size:** 384 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).

**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\\_001302807.1](https://www.ncbi.nlm.nih.gov/RefSeq/ accession/taxonomy/NCBI/10611/10611.1/seq/NM_001302807.1)

RefSeq Size: 1116 bp

RefSeq ORF: 384 bp

Locus ID: 58503

Cytogenetics: 4q13.3

Protein Families: Secreted Protein

MW: 14.6 kDa

**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]

Transcript Variant: This variant (2) contains an alternate exon in the 5' coding region, which results in a frameshift, compared to variant 1. The encoded isoform (2) is shorter and has a distinct C-terminus, compared to isoform 1. This isoform (2) lacks the functional QRFSR pentapeptide, known as opiorphin, located in the N-terminal of isoform 1.