

## Product datasheet for **RG205677**

### Osteoprotegerin (TNFRSF11B) (NM\_002546) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Osteoprotegerin (TNFRSF11B) (NM_002546) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Osteoprotegerin
Synonyms:	OCIF; OPG; PDB5; TR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG205677 representing NM_002546 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAACAACCTTGCTGTGCTGCGCGCTCGTGTCTGGACATCTCCATTAAGTGGACCACCCAGGAAACGT  
TTCCTCCAAAGTACCTTCATTATGACGAAGAAACCTCTCATCAGCTGTTGTGTGACAAATGTCCTCCTGG  
TACCTACCTAAAACAACACTGTACAGCAAAGTGAAGACCGTGTGCGCCCTTGCCCTGACCACTACTAC  
ACAGACAGCTGGCACACCAGTGACGAGTGTCTATACTGCAGCCCCGTGTGCAAGGAGCTGCAGTACGTCA  
AGCAGGAGTGAATCGCACCCACAACCGCGTGTGCGAATGCAAGGAAGGGCGCTACCTTGAGATAGAGTT  
CTGCTTGAACATAGGAGCTGCCCTCCTGGATTTGGAGTGGTGAAGCTGGAACCCAGAGCGAAATACA  
GTTTGCAAAGATGTCCAGATGGGTTCTTCTCAAATGAGACGTCTCTAAAGCACCTGTAGAAAACACA  
CAAATTGCAGTGTCTTTGGTCTCCTGCTAACTCAGAAAGGAAATGCAACACACGACAACATATGTTCCGG  
AAACAGTGAATCAACTCAAAAATGTGGAATAGATGTTACCCTGTGTGAGGAGGCATTCTTCAGGTTTGCT  
GTTCTACAAAGTTTACGCCTAACTGGCTTAGTGTCTTGGTAGACAATTTGCCTGGCACCAAAGTAAACG  
CAGAGAGTGTAGAGAGGATAAACCGCAACACAGCTCACAGAACAGACTTCCAGCTGCTGAAGTTATG  
GAAACATCAAAACAAAGACCAAGATATAGTCAAGAAGATCATCCAAGATATTGACCTCTGTGAAAACAGC  
GTGCAGCGGCACATTGGACATGCTAACCTCACCTTCGAGCAGCTTCGTAGCTTGATGAAAAGCTTACCGG  
GAAAGAAAAGTGGGAGCAGAAGACATTGAAAAACAATAAAGGCATGCAAACCCAGTGACCAGATCCTGAA  
GCTGCTCAGTTTGTGGCGAATAAAAAATGGCGACCAAGACACCTTGAAGGCCTAATGCACGCACTAAAG  
CACTCAAAGACGTACCACTTTCCAAAAGTGTCACTCAGAGTCTAAAGAAGACCATCAGGTTCTTCACA  
GCTTCACAATGTACAAATTGTATCAGAAGTTATTTTTAGAAATGATAGGTAACCAGGTCCAATCAGTAAA  
AATAAGCTGCTTA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG205677 representing NM\_002546  
 Red=Cloning site Green=Tags(s)

MNLLCCALVFLDISIKWTTQETFPKYLYHYDEETSHQLLCDKCPPGTYLKQHCTAKWKTVCAPCPDHYY  
 TDSWHTSDECLYCSPVCKELQYVKQECNRTHNRVCECKEGRYLEIEFCLKHRSCPPGFVQAGTPERNT  
 VCKRCPDGFSSNETSSKAPCRKHTNCSVFLGILLTQKGNATHDNICSGNSESTQKCGIDVTLCEEAFRFA  
 VPTKFTPNWLSVLVDNLPGTKVNAESVERIKRQHSSQEQTFLKLLKWKHQKNDQDIVKKI IQDIDL CENS  
 VQRHIGHANLTFEQLRSLMESLPGKKVGAEDIEKTIKACKPSDQILKLLSLWRIKNGDQDTL KGLMHALK  
 HSKTYHFPKTVTQSLKKTIRFLHSFTMYKLYQKLFLEMIGNQVQSVKISCL

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_002546

**ORF Size:** 1203 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\\_002546.4](#)

**RefSeq Size:** 2291 bp

**RefSeq ORF:** 1206 bp

**Locus ID:** 4982

**UniProt ID:** [O00300](#)

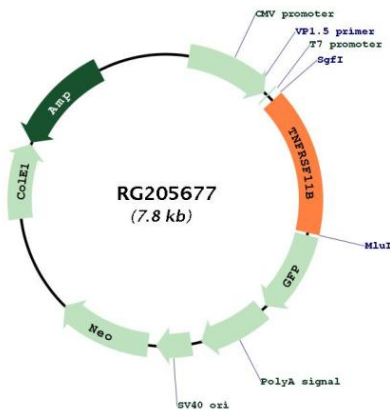
**Cytogenetics:** 8q24.12

**Protein Families:** Druggable Genome, Secreted Protein

**Protein Pathways:** Cytokine-cytokine receptor interaction

**Gene Summary:** The protein encoded by this gene is a member of the TNF-receptor superfamily. This protein is an osteoblast-secreted decoy receptor that functions as a negative regulator of bone resorption. This protein specifically binds to its ligand, osteoprotegerin ligand, both of which are key extracellular regulators of osteoclast development. Studies of the mouse counterpart also suggest that this protein and its ligand play a role in lymph-node organogenesis and vascular calcification. Alternatively spliced transcript variants of this gene have been reported, but their full length nature has not been determined. [provided by RefSeq, Jul 2008]

## Product images:



Circular map for RG205677