

Product datasheet for RC205677

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:	Myc-DDK
Symbol:	Osteoprotegerin
Synonyms:	OCIF; OPG; PDB5; TR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205677 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAACAACCTTGCTGTGCTGCGCGCTCGTGTCTGGACATCTCCATTAAGTGGACCACCCAGGAAACGT
TTCCTCCAAAGTACCTTCATTATGACGAAGAACTCTCATCAGCTGTTGTGTGACAAATGTCCTCTGG
TACCTACCTAAAACAACACTGTACAGCAAAGTGAAGACCGTGTGCGCCCTTGCCCTGACCACTACTAC
ACAGACAGCTGGCACACCAGTGACGAGTGTCTATACTGCAGCCCCGTGTGCAAGGAGCTGCAGTACGTCA
AGCAGGAGTGCAATCGCACCCACAACCGCGTGTGCGAATGCAAGGAAGGGCGCTACCTTGAGATAGAGTT
CTGCTTGAACATAGGAGCTGCCCTCCTGGATTTGGAGTGGTGAAGCTGGAACCCAGAGCGAAATACA
GTTTGCAAAGATGTCCAGATGGTTCTTCTCAAATGAGACGTCTAAAGCACCTGTAGAAAACACA
CAAATTGCAGTGTCTTTGGTCTCCTGCTAACTCAGAAAGGAAATGCAACACACGACAACATATGTTCCGG
AAACAGTGAATCAACTCAAAAATGTGGAATAGATGTTACCCTGTGTGAGGAGGCATTCTTCAGGTTTGCT
GTTCTACAAAGTTTACGCCTAACTGGCTTAGTGTCTTGGTAGACAATTTGCCTGGCACCAAAAGTAAACG
CAGAGAGTGTAGAGAGGATAAAACGGCAACACAGCTCACAGAACAGACTTCCAGCTGTGAAGTTATG
GAAACATCAAAACAAAGACCAAGATATAGTCAAGAAGATCATCCAAGATATTGACCTCTGTGAAAACAGC
GTGCAGCGGCACATTGGACATGCTAACCTCACCTTCGAGCAGCTTCGTAGCTTGATGGAAGCTTACCGG
GAAAGAAAAGTGGGAGCAGAAGACATTGAAAAACAATAAAGGCATGCAAACCCAGTGACCAGATCCTGAA
GCTGCTCAGTTTGTGGCGAATAAAAAATGGCGACCAAGACACCTTGAAGGCCTAATGCACGCACTAAAG
CACTCAAAGACGTACCACTTTCCAAAAGTGTCACTCAGAGTCTAAAGAAGACCATCAGGTTCTTCACA
GCTTCACAATGTACAAATGTATCAGAAGTTATTTTTAGAAATGATAGGTAACCAGGTCCAATCAGTAAA
AATAAGCTGCTTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC205677 protein sequence
Red=Cloning site Green=Tags(s)

MNLLCCALVFLDISIKWTTQETFPKYLYHYDEETSHQLLCDKCPPGTYLKQHCTAKWKTVCAPCPDHYY
 TDSWHTSDECLYCSPVCKELQYVKQECNRTHNRVCECKEGRYLEIEFCLKHRSCPPGFVGVQAGTPERNT
 VCKRCPDGFSSNETSSKAPCRKHTNCSVFGLLLTQKGNATHDNICSGNSESTQKCGIDVTLCEEAFRFA
 VPTKFTPNWLSVLVDNLPGTKVNAESVERIKRQHSSQEQTFLKLLKWKHQNKDQDIVKKI IQDIDL CENS
 VQRHIGHANLTFEQLRSLMESLPGKKVGAEDIEKTIKACKPSDQILKLLSLWRIKNGDQDTLKGLMHALK
 HSKTYHFPKTVTQSLKKTIRFLHSFTMYKLYQKLFLEMIGNQVQSVKISCL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6427_g11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

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: 2354 bp

RefSeq ORF: 1206 bp

Locus ID: 4982

UniProt ID: [O00300](#)

Cytogenetics: 8q24.12

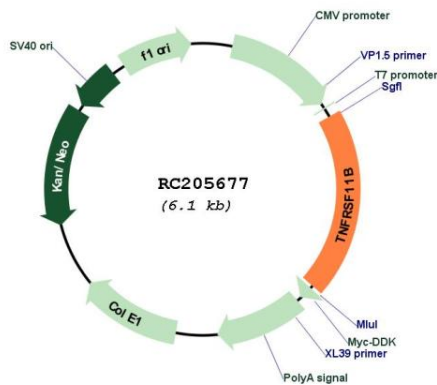
Protein Families: Druggable Genome, Secreted Protein

Protein Pathways: Cytokine-cytokine receptor interaction

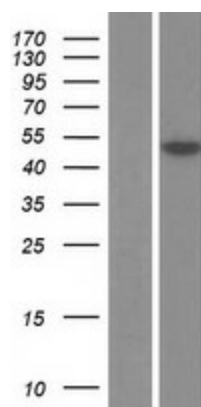
MW: 46 kDa

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 RC205677



Western blot validation of overexpression lysate (Cat# [LY419252]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205677 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).