

# Recombinant human OPG/TNFRSF11B protein

Catalog Number: OPG0905

## PRODUCT INFORMATION

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### Expression system

Baculovirus

### Domain

22-401aa

### UniProt No.

O00300

### NCBI Accession No.

NP\_002537.3

### Alternative Names

Tumor necrosis factor receptor superfamily member 11B, Osteoclastogenesis inhibitory factor, Osteoprotegerin, OCIF, OPG, TR1

## PRODUCT SPECIFICATION

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### Molecular Weight

44.7 kDa (389aa)

(On SDS-PAGE under denatured condition, apparent Molecular weight of glycosylated rhOPG protein will appear at approximately 55 kDa)

### Concentration

0.5 mg/ml (determined by Bradford assay)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 90% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured by its ability to inhibit cytotoxicity using Jurkat human acute T cell leukemia cells in the presence of 2ng/ml of human TRAIL (CAT# ATGP3588). The ED50 range  $\leq$  8 ng/ml.

### Tag

His-Tag

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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## BACKGROUND

### Description

Osteoprotegerin (OPG) is a member of the tumor necrosis factor (TNF) -related family, is referred to as TNFRSF11B and part of the OPG/receptor activator of NF- $\kappa$ B ligand (RANKL) /receptor activator of NF- $\kappa$ B (RANK) triad. This cytokine that lacks any apparent cell-association motifs and exists as a soluble secreted protein, network regulates the differentiation and activation of osteoclasts and hence the critical balance between bone formation (osteoblasts) and bone resorption (osteoclasts). Recombinant human osteoprotegerin protein, fused to His-tag at C-terminus, was expressed in Hi-5 cell using baculovirus expression system and purified by using conventional chromatography techniques.

### Amino acid Sequence

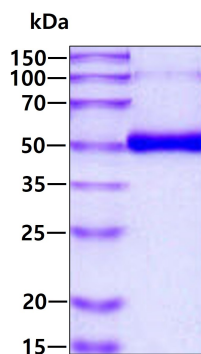
<ADP>ETFPKY LHYDEETSHQ LLC DKCPPGT YLKQHCTAKW KTVCAPCPDH YYTDSWHTSD ECLYCSPVCK ELQYVKQECN RTHNRVCECK EGRYLEIEFC LKHRSCPPGF GVVQAGTPER NTVCKRCPDG FFSNETSSKA PCRKHTNCSV FGLLLTQKGN ATHDNICSGN SESTQKCGID VTLCEEAFR FAVPTKFTPN WLSVLVDNLP GTKVNAESVE RIKRQHSSQE QTFQLLKLWK HQNKDQDIVK KIIQDIDLCE NSVQRHIGHA NLTFEQLRSL MESLPGKKVG AEDIEKTIKA CKPSDQILKL LSLWRIKNGD QDTLKGMLHA LKHSKTYHFP KTVTQSLKKT IRFLHSFTMY KLYQKLFLEM IGNQVQSVKI SCL<HHHHHH>

### General References

- Lacey, D.L. et al. (1998) Cell 93:165-76
- Yasuda H. et al. (1998) PNAS 95:3597-602
- A. Van Campenhout, Golledge J. (2009) Atherosclerosis 204:321-29

## DATA

### SDS-PAGE



3 $\mu$ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain

### Biological Activity

## Recombinant human OPG/TNFRSF11B protein

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Human Human OPG/TNFRSF11B inhibits Human TRAIL (CAT# ATGP3588) cytotoxicity in the Jurkat human acute T cell leukemia cells. The ED50 range  $\leq 8$  ng/ml.

