



Recombinant Human OPG (C-6His)

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| Catalog # | EPT052 |
| Expression Host | Human Cells |
| DESCRIPTION | Recombinant Human Osteoprotegerin is produced by our Mammalian expression system and the target gene encoding Glu22-Leu401 is expressed with a 6His tag at the C-terminus. |
| Accession | O00300 |
| Synonyms | Tumor Necrosis Factor Receptor Superfamily Member 11B; Osteoclastogenesis Inhibitory Factor; Osteoprotegerin; TNFRSF11B; OCIF; OPG |
| Mol Mass | 44.65 KDa |
| AP Mol Mass | 57 KDa, reducing conditions |
| Purity | Greater than 95% as determined by reducing SDS-PAGE. |
| Endotoxin | Less than 0.1 ng/ μ g (1 EU/ μ g) as determined by LAL test. |
| FORMULATION | Lyophilized from a 0.2 μ m filtered solution of 20mM PB, 150mM NaCl, pH 7.4. |





RECONSTITUTION

Always centrifuge tubes before opening. Do not mix by vortex or pipetting.

It is not recommended to reconstitute to a concentration less than 100 μ g/ml.

Dissolve the lyophilized protein in distilled water.

Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

SHIPPING

The product is shipped at ambient temperature.

Upon receipt, store it immediately at the temperature listed below.

STORAGE

Lyophilized protein should be stored at $< -20^{\circ}\text{C}$, though stable at room temperature for 3 weeks.

Reconstituted protein solution can be stored at $4-7^{\circ}\text{C}$ for 2-7 days.

Aliquots of reconstituted samples are stable at $< -20^{\circ}\text{C}$ for 3 months.

BACKGROUND

TNFRSF11B is a secreted protein, containing 2 death domains and 4 TNFR-Cys repeats. TNFRSF11B is a decoy receptor for the receptor activator of nuclear factor kappa B ligand (RANKL). By binding RANKL, TNFRSF11B inhibits nuclear kappa B (NF- κ B) which is a central and rapid acting transcription factor for





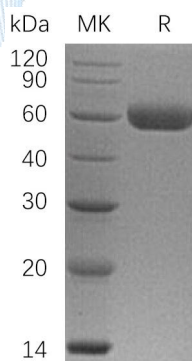
immune-related genes, and a key regulator of inflammation, innate immunity, and cell survival and differentiation. TNFRSF11B levels are influenced by voltage-dependent calcium channels Cav1.2. TNFRSF11B can reduce the production of osteoclasts by inhibiting the differentiation of osteoclast precursors (osteoclasts are related to monocytes/macrophages and are derived from granulocyte/macrophage-forming colony units (CFU-GM)) into osteoclasts and also regulates the resorption of osteoclasts in vitro and in vivo. TNFRSF11B binding to RANKL on osteoblast/stromal cells, blocks the RANKL-RANK ligand interaction between osteoblast/stromal cells and osteoclast precursors. This has the effect of inhibiting the differentiation of the osteoclast precursor into a mature osteoclast.





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SDS-PAGE



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