

## 32-7299: Recombinant Human Osteoprotegerin/OPG/TNFRSF11B (C-6His)

**Gene :** TNFRSF11B

**Gene ID :** 4982

**Uniprot ID :** O00300

### Description

Source: Human Cells.

MW :44.65kD.

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. 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-kB) 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.

### Product Info

**Amount :** 10 µg / 50 µg

**Content :** Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4.

**Storage condition :** Lyophilized protein should be stored at -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at -20°C for 3 months.

**Amino Acid :** ETFPKYLHYDEETSHQLLCDKCPPGYLQKHCTAKWKTVCAPCPDHYTDSWHTSDECLYCSPVCKELQYVK QECNRTHNRVCECKEGRYLEIEFCLKHRSCPPGFGVVQAGTPERNVCKRCPDGFSSNETSSKAPCRKHTNCS VFGLLLTQKGNATHDNICSGNSESTQKCGIDVTLCEEAFFRFAVPTKFTPNWLSVLVDNLPGTKVNAESVERIKR QHSSQEQTQQLLKLWKHQNKDQDIVKKIQQDIDLCENSVQRHIGHANLTFEQLRSLMESLPGKKVGAEDIEKTIK ACKPSDQILKLLSLWRIKNGDQDTLGLMHALKHSKTYHFPKTVTQSLKKTIRFLHSFTMYKLYQKLFLEMIGNQ VQSVKISCLVDHHHHHH

### Application Note

Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 µg/ml. Dissolve the lyophilized protein in ddH<sub>2</sub>O. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

**Endotoxin :** Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test.