



Recombinant Protein Technical Manual

Recombinant Human Osteoprotegerin/TNFRSF11B Protein (Fc Tag)(Active)

RPES0973

Product Data:

Product SKU: RPES0973

Size: 10µg

Species: Human

Expression host: Human Cells

Uniprot: O00300

Protein Information:

Molecular Mass: 47.2 kDa

AP Molecular Mass: 50-80 kDa

Tag: C-Fc

Bio-activity: Immobilized Human OPG-Fc at 2µg/ml(100 µl/well) can bind Mouse RANKL-His(Cat: PKSM041165). The ED50 of Mouse OPG-Fc is 2.44ug/ml .

Purity: > 90 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application: Functional ELISA

Synonyms: Tumor necrosis factor receptor superfamily member 11B; Osteoclastogenesis inhibitory factor; Osteoprotegerin; TNFRSF11B; OCIF; OPG;PDB5;TR1

Immunogen Information:

Sequence: Glu22-Leu201

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 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.