

# Recombinant Human Osteoprotegerin/TNFRSF11B Protein (Fc Tag)

**DIA • AN**<sup>®</sup>  
by Elabscience

Catalog Number:PKSH033124

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

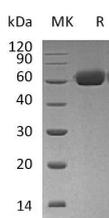
## Description

<b>Synonyms</b>	Tumor necrosis factor receptor superfamily member 11B;Osteoclastogenesis inhibitory factor;Osteoprotegerin;TNFRSF11B;OCIF;OPG;PDB5;TR1
<b>Species</b>	Human
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Glu22-Leu201
<b>Accession</b>	O00300
<b>Calculated Molecular Weight</b>	47.2 kDa
<b>Observed molecular weight</b>	50-80 kDa
<b>Tag</b>	C-Fc
<b>Bioactivity</b>	Loaded Recombinant Human OPG-Fc on Pro A Biosensor, can bind Mouse RANKL-His with an affinity constant of 1.02 pM as determined in BLI assay.

## Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, 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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

## Data



> 95 % as determined by reducing SDS-PAGE.

## 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-κB) 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

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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.

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