

# Recombinant Human Osteoprotegerin/TNFRSF11B Protein (Fc Tag)

Catalog Number: PKSH033124



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

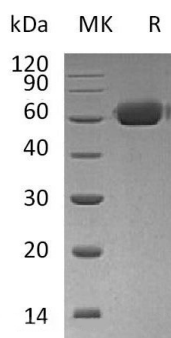
## Description

<b>Species</b>	Human
<b>Mol_Mass</b>	47.2 kDa
<b>Accession</b>	O00300
<b>Bio-activity</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% Tween 80 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 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.

## For Research Use Only