

Human RANKL / OPGL / TNFSF11 / CD254 Protein (Fc Tag)

Catalog Number: 11682-H04H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

TNFSF11, OPGL, RANKL, TRANCE

Protein Construction:

A DNA sequence encoding the human TNFSF11 (AAC51762.1) (Gly63-Asp244) was expressed with the Fc region of mouse IgG1 at the N-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio-Activity

1. Immobilized mouse mFc-TNFSF11 at 10 µg/ml (100 µl/well) can bind biotinylated human TNFRSF11B-His (Cat:10271-H08H). The EC50 of biotinylated human TNFRSF11B-His (Cat:10271-H08H) is 6.0-14.1 ng/ml.

2. The bioactivity of hRANKL was determined by measuring the ability of hRANKL to induce TRAP activity in Raw 264.7 cells. The ED50 for this effect is typically 15-45 ng/mL.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Asp

Molecular Mass:

The recombinant human TNFSF11/mFc comprises 418 amino acids and has a predicted molecular mass of 47.1 kDa. The apparent molecular mass of the monomer is approximately 48-56 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

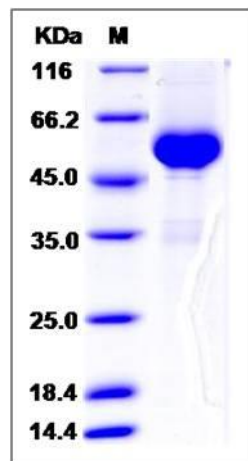
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

TNFSF11(tumor necrosis factor (ligand) superfamily, member 11,human IgG1-Fc chimera), also known as OPGL and CD254, is a member of the tumor necrosis factor (TNF) cytokine family. TNFRSF11A and OPG, cooperating with prostaglandin, mediating osteoclastogenesis and bone loss through systemic activation of T cells, regulating lymph node organogenesis lymphocyte development and interactions between T cells and dendritic cells, activating the antiapoptotic serine threonine kinase AKT/PKB through a signal complex involving TRAF6 and SRC. TNFSF11 is a cytokine that binds to TNFRSF11B/OPG and to TNFRSF11A/RANK. It augments the ability of dendritic cells to stimulate naive T-cell proliferation. TNFSF11 may be an important regulator of interactions between T-cells and dendritic cells and may play a role in the regulation of the T-cell-dependent immune response. It may also play an important role in enhanced bone-resorption in humoral hypercalcemia of malignancy. Defects in TNFSF11 are the cause of osteopetrosis autosomal recessive type 2.

References

1. Wong BR. et al., 1997, J Biol Chem. 272 (40): 25190-4.
2. Anderson DM. et al., 1997, Nature. 390 (6656): 175-9.
3. Schramek D. et al., 2010, Nature. 468 (7320): 98-102.
4. Gonzalez-Suarez E. et al., 2010, Nature. 468 (7320): 103-7.

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