

Recombinant mouse TRANCE/RANKL/TNFSF11 protein

Catalog Number: ATGP3915

PRODUCT INFORMATION

Expression system

E.coli

Domain

158-316aa

UniProt No.

O35235

NCBI Accession No.

NP_035743

Alternative Names

Tumor necrosis factor ligand superfamily member 11, Osteoclast differentiation factor, ODF, Osteoprotegerin ligand, OPGL, Receptor activator of nuclear factor kappa-B ligand, RANKL, TNF-related activation-induced cytokine, TRANCE, CD254

PRODUCT SPECIFICATION

Molecular Weight

17.9 kDa (160aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid In. 20mM Tris-HCl buffer (pH8.5) containing 0.1M NaCl

Purity

> 90% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Measured in a osteoclast differentiation assay using RAW 264.7 mouse monocyte/macrophage cells. The ED50 range \leq 2ng/ml.

Tag

Non-Tagged

Application

SDS-PAGE, Bioactivity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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BACKGROUND

Description

Tnfsf11, also known as tumor necrosis factor ligand superfamily member 11, is a member of the tumor necrosis factor (TNF) cytokine family which is a ligand for osteoprotegerin and functions as a key factor for osteoclast differentiation and activation. Tnfsf11 also has a function in the immune system, where it is expressed by T helper cells and is thought to be involved in dendritic cell maturation. Tnfsf11 is important in bone metabolism. This natural and necessary surface-bound molecule (also known as CD254) found on osteoblasts serves to activate osteoclasts, which are the cells involved in bone resorption. Recombinant Mouse Tnfsf11 protein was expressed in *E. coli* and purified by using conventional chromatography.

Amino acid Sequence

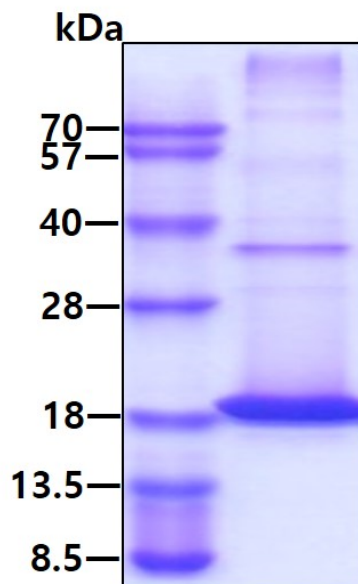
MKPEAQPF~~FAH~~ LTINAASIPS GSHKVTLLSSW YHDRGWAKIS NMTLSNGKLR VNQDGFYLY ANICFRHHET SGSVPTDYLQ LMVYVVKTSI KIPSSHNLMK GGSTKNWSGN SEFHFYSINV GGFFKLRAGE EISIQVSNPS LLDPDQDATY FGAFKVDID

General References

Lam J., et al. (2001). *J. Clin. Invest.* 108(7):971-9.
Ito S., et al. (2002). *J. Biol. Chem.* 277(8):6631-6.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

Biological Activity

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Mouse TRANCE/RANK L/TNFSF11 stimulates osteoclast differentiation of the RAW 264.7 mouse monocyte/macrophage cells. The ED50 range ≤ 2 ng/ml.

