

RP00183S

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Recombinant Human TNFSF11/RANKL/CD254 Protein

Catalog No.: RP00183S

Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
HEK293 Cells	8600	O14788-1

Tags

N-His-hFc

Synonyms

TNFSF11; OPGL; RANKL;
TRANCE , Tumor necrosis factor ligand superfamily member 11

Product Information

Source Purification

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize freeze-thaw cycles.

Endotoxin

< 0.01 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of

Background

Tumor necrosis factor ligand superfamily member 11, also known as Receptor activator of nuclear factor kappa-B ligand, Osteoprotegerin ligand, TNFSF11, RANKL, TRANCE, OPGL and CD254, is a single-pass type II membrane protein which belongs to the tumor necrosis factor family. TNFSF11 is a ligand for osteoprotegerin and functions as a key factor for osteoclast differentiation and activation. TNFSF11 was shown to be a dendritic cell survival factor and is involved in the regulation of T cell-dependent immune response. T cell activation was reported to induce expression of this gene and lead to an increase of osteoclastogenesis and bone loss. This protein was shown to activate antiapoptotic kinase AKT/PKB through a signaling complex involving SRC kinase and tumor necrosis factor receptor-associated factor (TRAF) 6, which indicated this protein may have a role in the regulation of cell apoptosis. Targeted disruption of the related gene in mice led to severe osteopetrosis and a lack of osteoclasts. The deficient mice exhibited defects in early differentiation of T and B lymphocytes, and failed to form lobulo-alveolar mammary structures during pregnancy.

Basic Information

Description

Recombinant Human TNFSF11/RANKL/CD254 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Gly136-Asp317) of Human TNFSF11/RANKL/CD254 (Accession #O14788-1) fused with a His and hFc tag at the N-terminus.

Bio-Activity

Measured by its ability to induce osteoclast differentiation of RAW 264.7 mouse monocyte/macrophage cells. The ED50 for this effect is 3.49-13.98 ng/mL, corresponding to a specific activity of $7.15 \times 10^4 \sim 2.86 \times 10^5$ units/mg.

Shipping

Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

Storage

Store at -20°C
Avoid repeated freeze/thaw cycles.

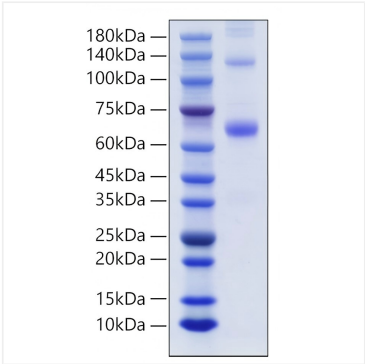
0.1-0.5 mg/mL in sterile distilled water.
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Contact

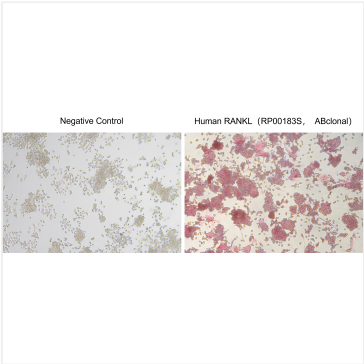


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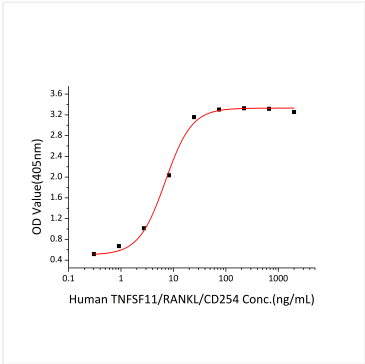
Validation Data



Recombinant Human TNFSF11/RANKL/CD254 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Measured by its ability to induce osteoclast differentiation of RAW264.7 cells.



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