

Recombinant Mouse TNFSF11/RANKL/CD254 Protein

Catalog No.: RP01785 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Mouse	21943	O35235

Tags

N-6His

Synonyms

ODF; OPGL; RANKL; Ly109l;
Trance□TNFSF11□CD254

Product Information

Source Purification

HEK293 cells

Endotoxin

< 0.01 EU/μg

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution

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 free-thaw cycles.

Contact

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Background

Mouse tumor necrosis factor ligand superfamily member 11(Tnfsf11) is a member of the tumor necrosis factor(TNF) cytokine family. Tnfsf11 is widely expressed in cells including T cells and T cell rich organs, such as thymus and lymph nodes. This cytokine can bind to TNFRSF11B/OPG and TNFRSF11A/RANK. Tnfsf11 is involved in a number of fundamental biological processes such as acting as regulator of interactions between T-cells and dendritic cells, the regulation of the T-cell-dependent immune response and enhancing bone-resorption in humoral hypercalcemia of malignancy. It augments the ability of dendritic cells to stimulate naive T-cell proliferation.

Basic Information

Description

Recombinant Mouse TNFSF11/RANKL/CD254 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Arg72-Asp316) of mouse TNFSF11 (Accession #NP_035743.2) fused with a 6×His 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 11.19-44.76 ng/mL, corresponding to a specific activity of 2.23×10⁴~8.94×10⁵ units/mg.

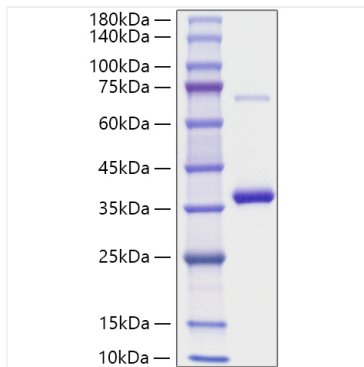
Storage

Store the lyophilized protein at -20°C to -80°C for 12 months.

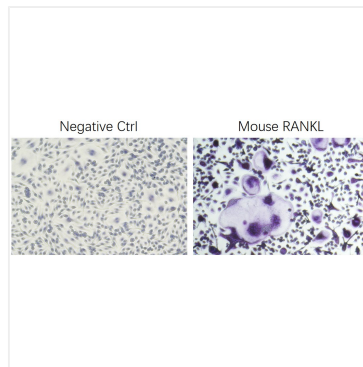
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

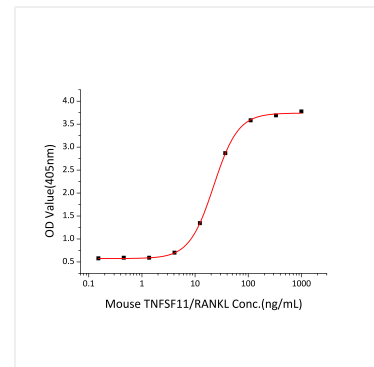
Validation Data



Recombinant Mouse TNFSF11/RANKL/CD254 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 30-40 kDa.



Measured by its ability to induce osteoclast differentiation of mouse bone marrow cells. A combination of recombinant mouse M-CSF (Cat. RP01216, 50 ng/mL) and RANKL (50 ng/mL) can effectively induce the differentiation of mouse bone marrow cells to osteoclasts.



Measured by its ability to induce osteoclast differentiation of RAW 264.7 mouse monocyte/macrophage cells. The ED_{50} for this effect is 11.19-44.76 ng/mL, corresponding to a specific activity of $2.23 \times 10^4 \sim 8.94 \times 10^5$ units/mg.