

# Recombinant Mouse TNFSF11/RANKL/CD254 Protein

Catalog No.: RP00745 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Mouse	21943	O35235

### Tags

No tag

### Synonyms

Tumor necrosis factor ligand superfamily member 11;Tnfsf11;Osteoclast differentiation factor;ODF;Osteoprotegerin ligand;OPGL;Receptor activator of nuclear factor kappa-B ligand;RANKL;TNF-related activation-induced cytokine;TRANCE;CD254; TNFSF11

## Product Information

Source	Purification
<i>E. coli</i>	> 95% by SDS-PAGE.

### Endotoxin

&lt; 1 EU/μg of the protein by LAL method.

### 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.

## 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 a 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/RANK L/TRANCE Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Arg156-Asp316) of mouse TNFSF11/RANK L/TRANCE (Accession #O35235).

### Bio-Activity

Measured by its ability to induce osteoclast differentiation of RAW 264.7 mouse monocyte/macrophage cells. The ED<sub>50</sub> for this effect is 2.30-9.22 ng/mL, corresponding to a specific activity of 1.08×10<sup>5</sup>~4.35×10<sup>5</sup> units/mg.

### Storage

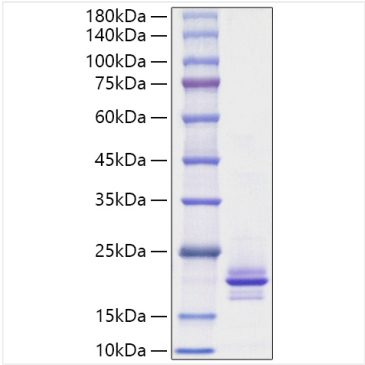
Store the lyophilized protein at -20°C to -80°C for 12 months. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

## Contact

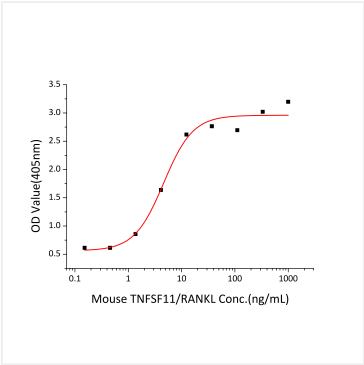
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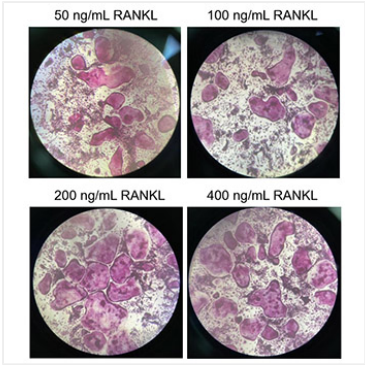
Validation Data



Recombinant Mouse TNFSF11/RANKL/CD254 Protein determined by SDS-PAGE with Coomassie Blue. showing a band at 15-25 kDa.



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Induce mouse BMMs to differentiate into osteoclasts with recombinant mouse RANKL (50-400 ng/mL) and M-CSF (25 ng/mL, Cat. RP01216). Replace with fresh medium every two days. After 5 days' stimulation, the cells were fixed, and TRAP staining was performed. Results showed that BMMs differentiated into osteoclasts successfully. (Customer feedback data)