

Recombinant Mouse TNFSF11/RANKL/CD254 Protein (With Carrier)

Catalog No.: RP02134C

Sequence Information

Species	Gene ID
Mouse	21943
Swiss Prot	Tags
O35235-1	N-His,N-hFc

Synonyms

ODF, OPGL, RANKL, Ly109I, Trance, TNFSF11, Tumor necrosis factor ligand superfamily member 11

Product Information

Source	Purification
HEK293 Cells	≥ 95 % as determined by SDS-PAGE.

Calculated MW Observed MW

55.63 KD 60-75 KDa

Endotoxin

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

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4 with 50 μg BSA per 1 μg as a carrier protein.

Reconstitution

Centrifuge the tube before opening. Reconstitute at 100 μg /mL in sterile PBS. For long term storage, please aliquot the reconstituted protein solution to minimize free-thaw cycles.

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 that belongs to the tumor necrosis factor family. The receptor activator of nuclear factor-kappaB ligand (RANKL), its cognate receptor RANK, and its natural decoy receptor osteoprotegerin have been identified as the final effector molecules of osteoclastic bone resorption. RANK and RANKL are key regulators of bone remodeling and regulate T cell/dendritic cell communications, and lymph node formation. Moreover, RANKL and RANK are expressed in mammary gland epithelial cells and control the development of a lactating mammary gland during pregnancy. Genetically, RANKL and RANK are essential for the development and activation of osteoclasts and bone loss in response to virtually all triggers tested. Inhibition of RANKL function via the natural decoy receptor osteoprotegerin (OPG, TNFRSF11B) prevents bone loss in postmenopausal osteoporosis and cancer metastases. Importantly, RANKL appears to be the pathogenetic principle that causes bone and cartilage destruction in arthritis. RANK-RANKL signaling not only activates a variety of downstream signaling pathways required for osteoclast development, but crosstalk with other signaling pathways also fine-tunes bone homeostasis both in normal physiology and disease. In addition, RANKL and RANK have essential roles in lymph node formation, establishment of the thymic microenvironment, and development of a lactating mammary gland during pregnancy.

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/RANKL/CD254 (Accession #AAC40113.1) fused with a His and hFc tag at the N-terminus.

Activity

Mouse bone marrow-derived BMDM P3 were used. Cells were induced with M-CSF (RP01216SC, 50 ng/mL) for 3 days, followed by induction with M-CSF (RP01216SC, 50 ng/mL) plus RANKL (RP02134C, 100 ng/mL) for 5 days (95 h). (top); RAW264.7 cells were treated with RANKL (RP02134C, 100 ng/mL) and induced for 4 days (76 h). (below).

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.

Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80°C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

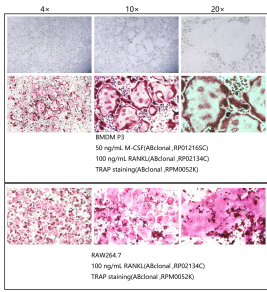
Operational Notes

Contact

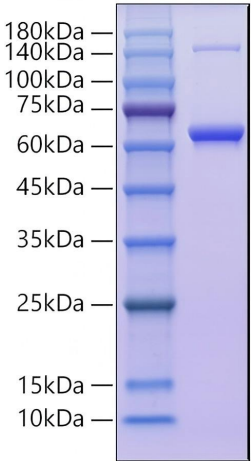
	400-999-6126
	cn.market@abclonal.com.cn
	www.abclonal.com.cn

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

Validation Data



Mouse bone marrow-derived BMDM P3 were used. Cells were induced with M-CSF (RP01216SC, 50 ng/mL) for 3 days, followed by induction with M-CSF (RP01216SC, 50 ng/mL) plus RANKL (RP02134C, 100 ng/mL) for 5 days (95 h). (top); RAW264.7 cells were treated with RANKL (RP02134C, 100 ng/mL) and induced for 4 days (76 h). (below).



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