Recombinant Human TNFSF11/RANKL/CD254 Protein

Catalog No.: RP00183S

www.abclonal.com

Sequence Information

Species
Human

Gene ID
8600

Swiss Prot
O14788-1

Tags
N-HiS-hFC

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

Product Information

Source
HEK293 Cells

Purification

Calculated MW
49.2 KD

Observed MW
50-66 kDa

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 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 stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and 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 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 dentritic 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.

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 7.15×104~2.86×105 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.

Storage
Store at -20℃

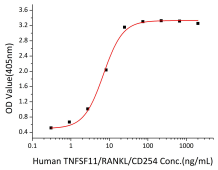
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

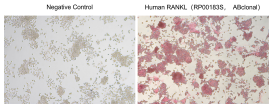
400-999-6126
cn.market@abclonal.com.cn
www.abclonal.com.cn

For research use only. Not for therapeutic or diagnostic purposes.
Please visit http://abclonal.com for a complete listing of recommended products.

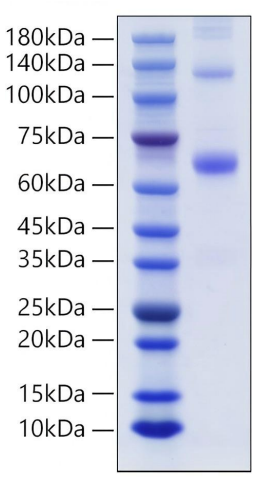
Validation Data



Measured by its ability to induce osteoclast differentiation of RAW 264.7 mouse monocyte/macrophage cells. The ED_{50} for this effect is 3.49-13.98 ng/mL, corresponding to a specific activity of 7.15×10^4~2.86×10^5 units/mg.



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



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