AssayGenie

Recombinant Human TNFSF11/RANKL/CD254 Protein

RPCB0324

Description

This high-purity recombinant protein is supplied as a kit for advanced applications. The kit includes Bradford Reagent to quantify total protein concentration for accurate sample normalization (Optional).

Protein Information

SKU: RPCB0324

Contents: 10 µg, 20 µg, 50 µg, 100 µg Bradford Reagent (1 vial, 2ml)

Reactivity: Human

Gene ID: 8600

Expression Host: HEK293 cells

Tags: N-His

Calculated MW: 21.32 kDa

Observed MW: 35 kDa

Protein Description: High quality, high purity and low endotoxin recombinant Recombinant Human TNFSF11/RANKL/CD254 Protein (RPCB0324), tested reactivity in HEK293 cells and has been validated in SDS-PAGE.100% guaranteed.

Protein Quantification (Optional): To quantify total protein levels, use the Bradford Reagent included in this kit. Visit https://www.assaygenie.com/bradford-protein-assay-protocol/ to view the full protocol.

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

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.

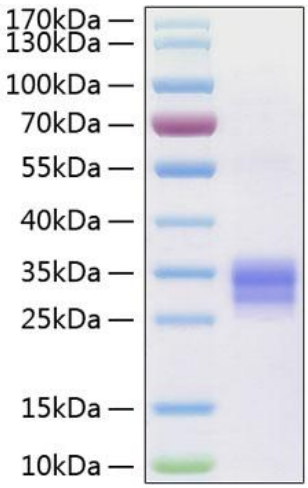
Synonyms: TNFSF11, CD254, ODF, OPGL, OPTB2, RANKL, TNLG6B, TRANCE, hRANKL2, sOdf

Purification: ≥ 95 % as determined by SDS-PAGE;≥ 90 % as determined by HPLC.

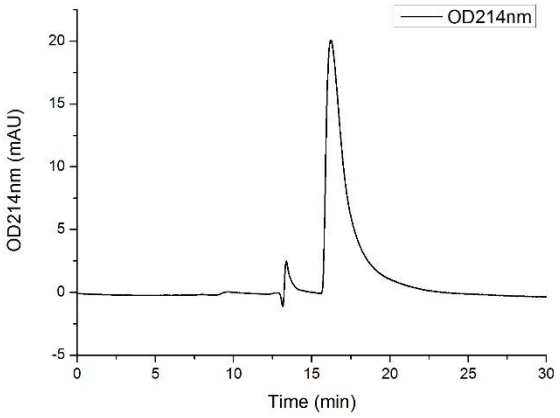
Endotoxin: < 0.1 EU/µg of the protein by LAL method.

Validation Data

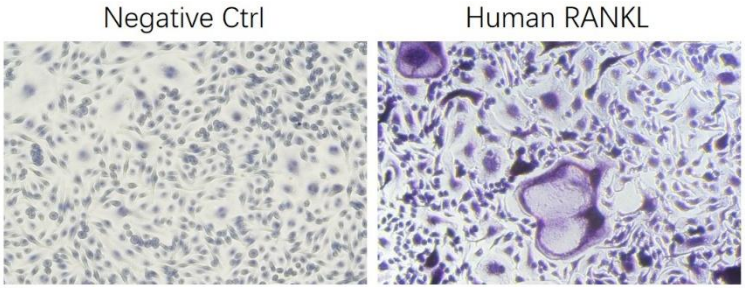
Image



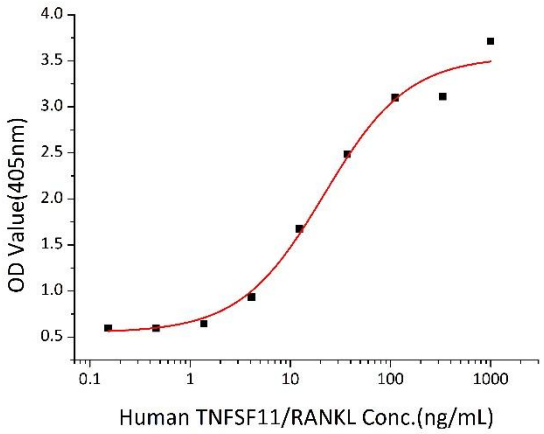
Description
Recombinant Human TNFSF11/RANKL/CD254 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



The purity of Human TRANCE/RANK L/TNFSF11 Protein (RPCB0324) was greater than 90% as determined by SEC-HPLC.



Measured by its ability to induce osteoclast differentiation of mouse bone marrow cells.



Measured by its ability to induce osteoclast differentiation of RAW 264.7 mouse monocyte/macrophage cells. The ED50 for this effect is 10.85-43.42 ng/mL, corresponding to a specific activity of 2.30×104~9.22×104 units/mg.