Biotinylated Human TNFSF11 / RANKL / CD254 Protein, His,Avitag™, active trimer (MALS verified)

Catalog # RAL-H82Q5

Synonyms

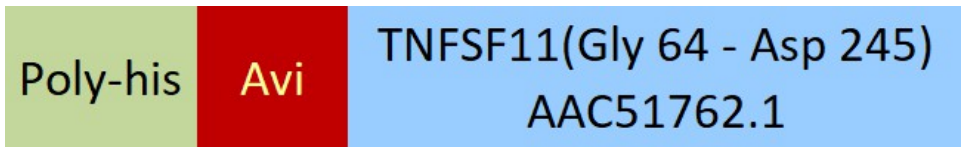
RANKL, CD254, TRANCE, OPGL, ODF

Source

Biotinylated Human TNFSF11 Protein, His,Avitag (RAL-H82Q5) is expressed from human 293 cells (HEK293). It contains AA Gly 64 - Asp 245 (Accession # AAC51762.1) trimer Design.

Predicted N-terminus: His

Molecular Characterization



This protein carries a polyhistidine tag at the N-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 24.1 kDa. The protein migrates as 30-35 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Shipping and Storage

This product is shipped at ambient temperature.

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

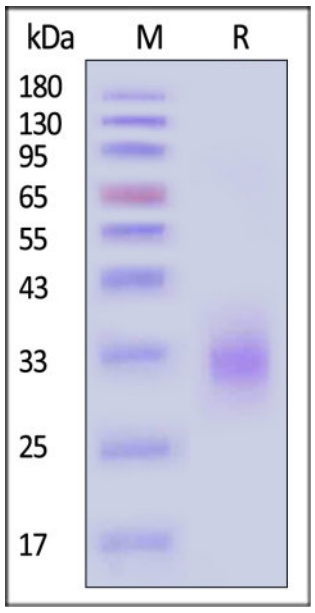
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

ACRO Quality Management System

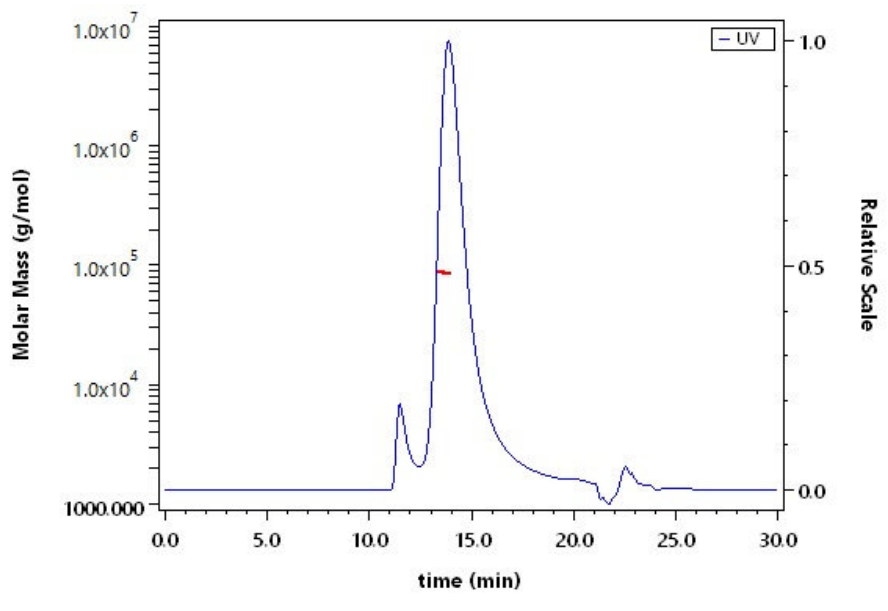
- QMS(ISO, GMP)
- Quality Advantages
- Quality Control Process

SDS-PAGE



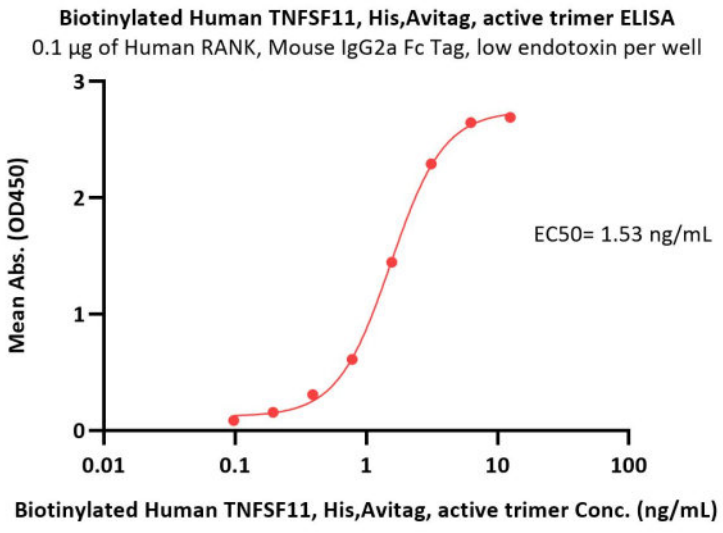
Biotinylated Human TNFSF11 Protein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS

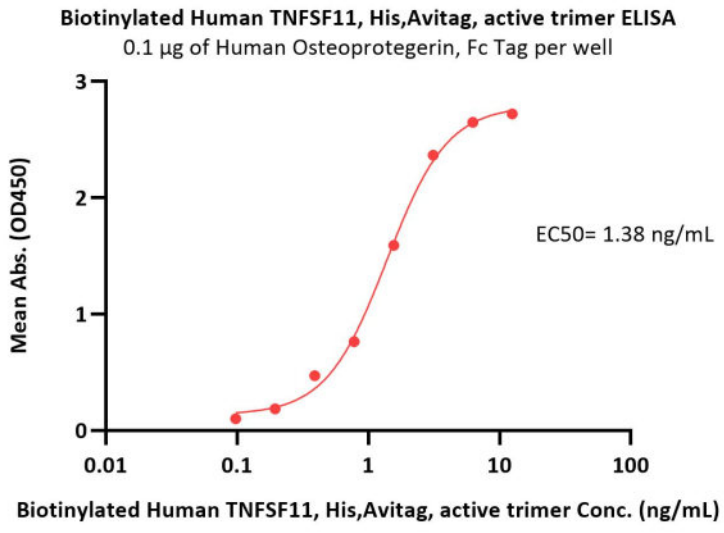


The purity of Biotinylated Human TNFSF11 Protein, His,Avitag (Cat. No. RAL-H82Q5) is more than 85% and the molecular weight of this protein is around 85-110 kDa verified by SEC-MALS.

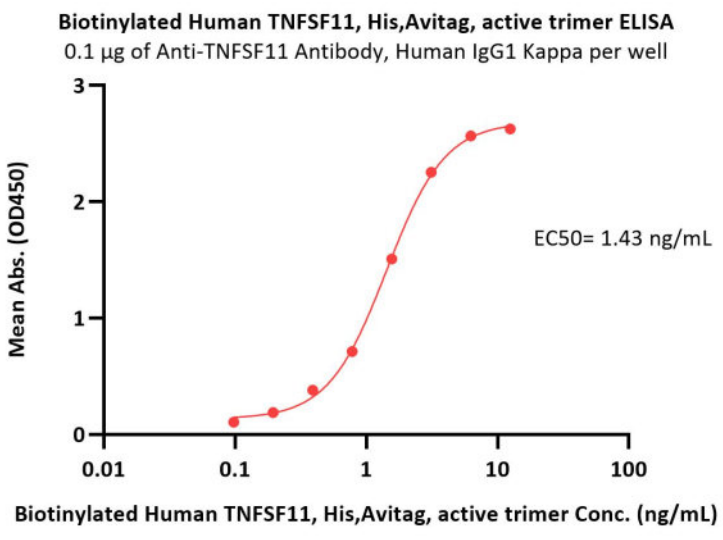
Bioactivity-ELISA



Immobilized Human RANK Protein, Mouse IgG2a Fc Tag (Cat. No. RAK-H5251) at 1 μg/mL (100 μL/well) can bind Biotinylated Human TNFSF11 Protein, His,Avitag (Cat. No. RAL-H82Q5) with a linear range of 0.1-3 ng/mL (QC tested).



Immobilized Human Osteoprotegerin, Fc Tag (Cat. No. TNB-H5259) at 1 μg/mL (100 μL/well) can bind Biotinylated Human TNFSF11 Protein, His,Avitag (Cat. No. RAL-H82Q5) with a linear range of 0.1-3 ng/mL (Routinely tested).



Immobilized Anti-TNFSF11 Antibody, Human IgG1 Kappa at 1 μg/mL (100 μL/well) can bind Biotinylated Human TNFSF11 Protein, His,Avitag (Cat. No. RAL-H82Q5) with a linear range of 0.1-3 ng/mL (Routinely tested).

Background

Receptor activator of nuclear factor kappa-B ligand (RANKL), also known as tumor necrosis factor ligand superfamily member 11 (TNFSF11), TNF-related activation-induced cytokine (TRANCE), osteoprotegerin ligand (OPGL), and osteoclast differentiation factor (ODF), is known as a type II membrane protein and is a

member of the tumor necrosis factor (TNF) superfamily. RANKL, through its ability to stimulate osteoclast formation and activity, is a critical mediator of bone resorption and overall bone density. Some findings also suggestion some cancer cells, particularly prostate cancer cells, can activate an increase in bone remodeling and ultimately increase overall bone production.[17] This increase in bone remodeling and bone production increases the overall growth of bone metastasizes. The overall control of bone remodeling is regulated by the binding of RANKL with its receptor or its decoy receptor, respectively, RANK and OPG.

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