

# Recombinant Human TNFSF9/4-1BB Ligand Trimer Protein

Catalog No.: RP00361 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	8744	P41273

### Tags

N-His

### Synonyms

41BB Ligand; 4-1BB Ligand; 4-1BBL;  
CD137L; TNFSF9

## Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE > 95% by HPLC

### Endotoxin

< 1 EU/μg of the protein by LAL method

### Formulation

Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

### 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.

## Contact

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## Background

The 4-1BBL is the high affinity ligand of 4-1BB, also known as CD137L or TNFSF9. 4-1BB ligand (4-1BBL) is an inducible molecule present on several APC types, including B cells, macrophages and DCs. 4-1BB:4-1BBL pathway seems to amplify the existing costimulatory signals, even if the engagement of 4-1BB in the presence of a strong TCR signaling can induce IL-2 production in a CD28-independent manner.

## Basic Information

### Description

Recombinant Human TNFSF9/4-1BB Ligand Trimer Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Arg71-Glu254) of Human TNFSF9/4-1BB Ligand Trimer (Accession #P41273) fused with a N-His tag at the N-terminus.

### Bio-Activity

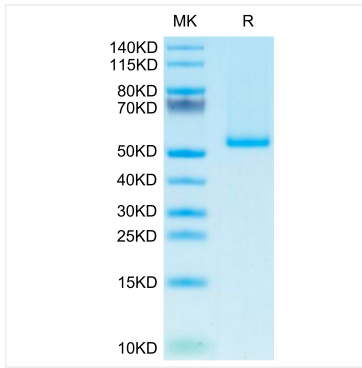
#### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

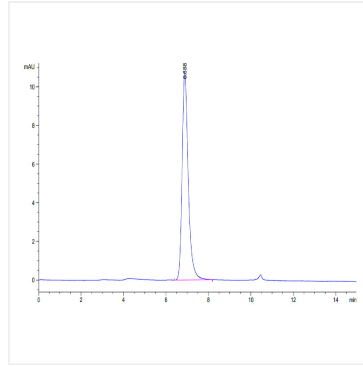
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

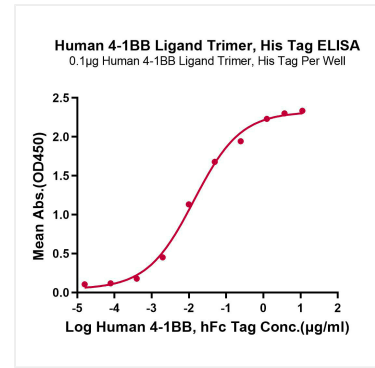
## Validation Data



Human 4-1BB Ligand Trimer on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.



The purity of Human 4-1BB Ligand Trimer is greater than 95% as determined by SEC-HPLC.



Human 4-1BB Ligand Trimer, His Tag ELISA  
0.1µg Human 4-1BB Ligand Trimer, His Tag Per Well  
Immobilized Human 4-1BB Ligand Trimer, His Tag at 1 µg/mL (100 µL/Well) on the plate. Dose response curve for Human 4-1BB, hFc Tag with the EC<sub>50</sub> of 13.7ng/mL determined by ELISA.