

# Recombinant Human TNFSF9/4-1BB Ligand Protein

Catalog No.: RP00060 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	8744	P41273

### Tags

C-His

### Synonyms

4-1BB-L; CD137L;  
TNLG5A;TNFSF9;CD137L;TNLG5A

## Product Information

Source	Purification
<i>E. coli</i>	≥ 95 % as determined by SDS-PAGE.

Calculated MW	Observed MW
20.28 kDa	18-25 kDa

### Endotoxin

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

### Formulation

Lyophilized from a 0.22 μm filtered solution of 50mM Tris, 150mM NaCl, pH 8.0. Contact us for customized product form or formulation.

### 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

☎ | 400-999-6126

✉ | [cn.market@abclonal.com.cn](mailto:cn.market@abclonal.com.cn)

## Background

The protein is a cytokine that belongs to the tumor necrosis factor (TNF) ligand family. This transmembrane cytokine is a bidirectional signal transducer that acts as a ligand for TNFRSF9/4-1BB, which is a costimulatory receptor molecule in T lymphocytes. This cytokine and its receptor are involved in the antigen presentation process and in the generation of cytotoxic T cells. The receptor TNFRSF9/4-1BB is absent from resting T lymphocytes but rapidly expressed upon antigenic stimulation. The ligand encoded by this gene, TNFSF9/4-1BBL, has been shown to reactivate anergic T lymphocytes in addition to promoting T lymphocyte proliferation. This cytokine has also been shown to be required for the optimal CD8 responses in CD8 T cells. This cytokine is expressed in carcinoma cell lines, and is thought to be involved in T cell-tumor cell interaction.

## Basic Information

### Description

Recombinant Human TNFSF9/4-1BB Ligand Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Arg71-Glu254) of human 4-1BB Ligand/TNFSF9 (Accession #NP\_003802.1) fused with a 6×His tag at the C-terminus.

### Bio-Activity

1. Measured by its binding ability in a functional ELISA. Immobilized recombinant human TNFSF9 at 2 μg/mL (100 μL/well) can bind recombinant human TNFRSF9 with a linear range of 40-100 ng/mL. 2. Measured by its binding ability in a functional ELISA. Immobilized Human TNFSF9/4-1BB at 2 μg/mL (100 μL/well) can bind Human TNFRSF9/4-1BB/CD137 with a linear range of 0.1-5.8 ng/mL.

### Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

### Storage

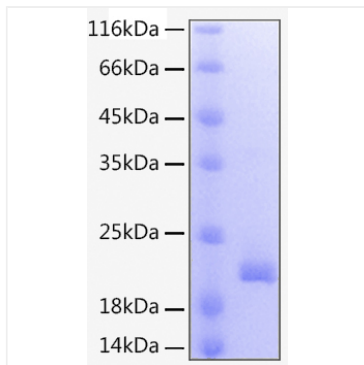
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

### Operational Notes

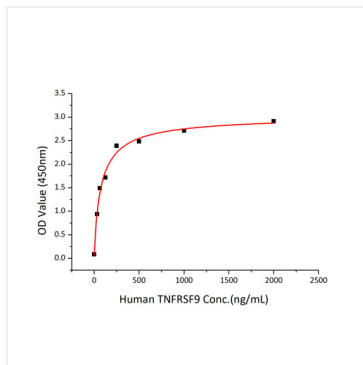
For your safety and health, please wear a lab coat and disposable gloves for handling.



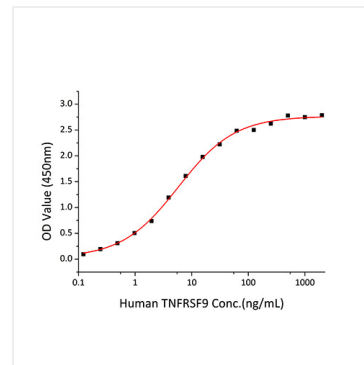
## Validation Data



Recombinant Human TNFSF9/4-1BB Ligand Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Immobilized recombinant human TNFSF9 at 2  $\mu\text{g/mL}$  (100  $\mu\text{L/well}$ ) can bind recombinant human TNFRSF9 with a linear range of 40-100ng/mL.



Immobilized Human TNFSF9/4-1BB at 2  $\mu\text{g/mL}$  (100  $\mu\text{L/well}$ ) can bind Human TNFRSF9/4-1BB/CD137 with a linear range of 0.1-5.8 ng/mL.