

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% by SDS-PAGE.

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

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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.

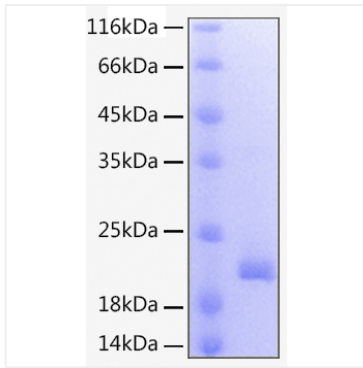
Bio-Activity

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.

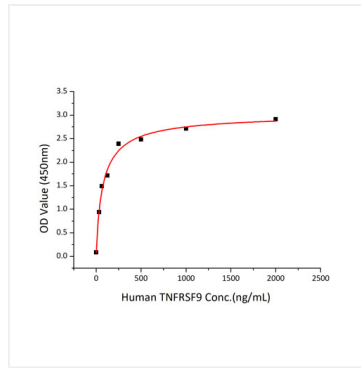
Storage

Store the lyophilized protein at -20°C to -80 °C for long term. 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.

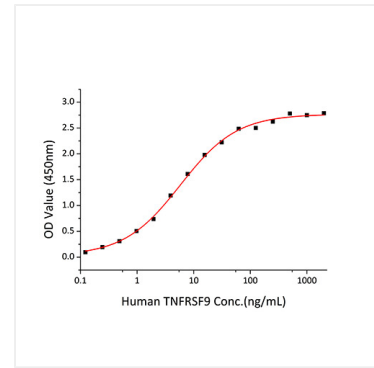
Validation Data



Recombinant Human TNFSF9/4-1BB Ligand Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 20 kDa.



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.