

For Research Use Only

# Recombinant Human 4-1BB Ligand/TNFSF9 protein (hFc Tag)



Catalog Number: Eg0079

## Basic Information

**ED50:**  
6-24 ng/mL

**GenelD:**  
8744

**Species:**  
Human

**Accession:**  
P41273

**Purity:**  
>95 %, SDS-PAGE

## Technical Specifications

**Purity:**  
>95 %, SDS-PAGE

**Endotoxin Level:**  
<1.0 EU/  $\mu$ g protein, LAL method

**Source:**  
HEK293-derived Human 4-1BB Ligand protein Arg71-Glu254 (Accession# P41273) with a human IgG1 Fc tag at the N-terminus.

**Predicted Molecular Mass:**  
45.4 kDa

**SDS-PAGE:**  
45-50 kDa, reducing (R) conditions

**Formulation:**  
Lyophilized from sterile PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

## Biological Activity

Immobilized Human 4-1BB (Myc tag, His tag) at 0.5  $\mu$ g/mL (100  $\mu$ L/well) can bind Human 4-1BB Ligand (hFc tag) with a linear range of 6-24 ng/mL.

## Storage and Shipping

**Storage:**  
It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- 12 months from the date of receipt, -20°C to -80°C as lyophilized proteins.
- 3 months, -20°C to -80°C under sterile conditions after reconstitution.

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

## Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

## Background

TNFSF9 (Tumor necrosis factor ligand superfamily member 9) is also known as 4-1BBL (4-1BB ligand) or CD137L. TNFSF9 is a type 2 transmembrane glycoprotein receptor that is found on APCs (antigen presenting cells). TNFSF9 is expressed on activated T Lymphocytes. The TNFSF9/4-1BB complex with the help of T-cell receptor signals can trigger the increase in CD28- T cells and inhibit tumor growth. The interaction between 4-1BB and TNFSF9 provides costimulatory signals to T cells, which can be used to cancer immunotherapy.

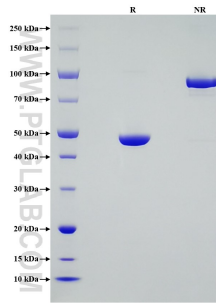
## References

- 1.Jacob Bukczynski. et al. (2003). Eur J Immunol. 33(2): 446-54.
- 2.Adam T C Cheuk. et al. (2004). Cancer Gene Ther. 11(3): 215-26.
- 3.Chao Wang. et al. (2009). Immunol Rev. 229(1): 192-215.
- 4.Dass S Vinay. et al. (2012). Mol Cancer Ther. 11(5): 1062-1070.
- 5.Cariad Chester. et al. (2018). Blood. 131(1): 49-57.

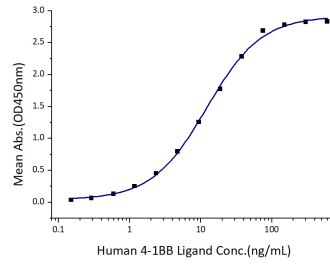
## Synonyms

4-1BB Ligand, 4-1BBL, CD137L, TNFSF9

## Selected Validation Data



Purity of Recombinant Human 4-1BB Ligand was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.



Immobilized Human 4-1BB (Myc tag, His tag) at 0.5  $\mu$ g/mL (100  $\mu$ L/well) can bind Human 4-1BB Ligand (hFc tag) with a linear range of 6-24 ng/mL.

For technical support and original validation data for this product please contact

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