

Recombinant Human 4-1BB Ligand/TNFSF9 Protein

Catalog No	RP00060	Category	Protein
Description	Recombinant Human 4-1BB Ligand/TNFSF9 Protein is produced by <i>E. coli</i> 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	Measured by its binding ability in a functional ELISA. When Recombinant Human (rh) 4-1BB/TNFRSF9/CD137 Fc Chimera is Immobilized at 10 ng/mL (100 µL/well), the concentration of rh4-1BB Ligand that produces 50% optimal binding response is found to be approximately 0.5-2.5 ng/mL.		

Sequence Information

Species	Human	Gene ID	8744
Tags	6×His tag at the C-terminus	Swiss Prot	P41273
Synonyms	4-1BB-L;CD137L;TNLG5A		
AA Sequence	REGPELSPDDPAGLLDLRQGMFAQLVAQNVLIDGPLSWYSDPGLAGVSLTGGLSYKEDT KELVVAKAGVYVFFQLELRRVAGEGSGSVSLALHLQPLRSAAGAAALALTVDLPPASS EARNSAFGFGRLHLHSAGQRLGVHLHTEARARHAWQLTQGATVLGLFRVTPEIPAGLPS PRSE		

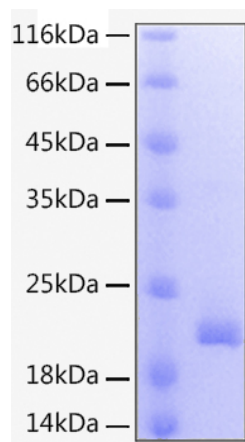
Product information

Source	<i>E. coli</i>
Purity	> 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.
Reconstitution	Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water.
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.

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.

SDS-PAGE



Bioactivity

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