

## Recombinant Human TNFSF9 Protein, His-tagged

Cat. No. TNFSF9-2019H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant Human 4-1BB Ligand/TNFSF9 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 6xHis tag at the C-terminus.

**Species** Human

**Source** E.coli

**ProteinLength** Arg71-Glu254

**Description** The protein encoded by this gene 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.

**Form** Lyophilized from sterile PBS, pH 7.4, 5 % trehalose, 5 % mannitol.

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<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Purity</b>	> 90% as determined by SDS-PAGE
<b>Stability</b>	Samples are stable for up to twelve months from date of receipt at -70°C.
<b>Storage</b>	Store it under sterile conditions at -20°C~-70°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

## GENE INFORMATION

<b>Gene Name</b>	TNFSF9 tumor necrosis factor (ligand) superfamily, member 9 [ Homo sapiens ]
<b>Official Symbol</b>	TNFSF9
<b>Synonyms</b>	TNFSF9; tumor necrosis factor (ligand) superfamily, member 9; tumor necrosis factor ligand superfamily member 9; 4 1BB L; homolog of mouse 4 1BB L; receptor 4 1BB ligand; 4-1BBL; 4-1BB ligand; receptor 4-1BB ligand; homolog of mouse 4-1BB-L; CD137L; 4-1BB-L;
<b>Gene ID</b>	8744
<b>mRNA Refseq</b>	NM_003811
<b>Protein Refseq</b>	NP_003802
<b>MIM</b>	606182

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UniProt ID

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