

## Product datasheet for **TP721145M**

### **TNFSF9 (NM\_003811) Human Recombinant Protein**

#### **Product data:**

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Purified recombinant protein of Human tumor necrosis factor (ligand) superfamily, member 9 (TNFSF9)
<b>Species:</b>	Human
<b>Expression Host:</b>	E. coli
<b>Expression cDNA Clone or AA Sequence:</b>	Arg71-Glu254
<b>Tag:</b>	C-His
<b>Predicted MW:</b>	20.6 kDa
<b>Concentration:</b>	lot specific
<b>Purity:</b>	>95% as determined by SDS-PAGE and Coomassie blue staining
<b>Buffer:</b>	Provided lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCl, 150 mM NaCl
<b>Endotoxin:</b>	Endotoxin level is < 0.1 ng/µg of protein (< 1 EU/µg)
<b>Reconstitution Method:</b>	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. Dissolve the lyophilized protein in ddH <sub>2</sub> O. It is not recommended to reconstitute a concentration less than 100 µg/ml. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
<b>Storage:</b>	Store at -80°C.
<b>Stability:</b>	Stable for at least 6 months from date of receipt under proper storage and handling conditions.
<b>RefSeq:</b>	<a href="#">NP_003802</a>
<b>Locus ID:</b>	8744
<b>UniProt ID:</b>	<a href="#">P41273</a> , <a href="#">A0A0U5J8I0</a>
<b>RefSeq Size:</b>	1680
<b>Cytogenetics:</b>	19p13.3
<b>RefSeq ORF:</b>	762
<b>Synonyms:</b>	4-1BB-L; CD137L; TNLG5A



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**Summary:**

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.[provided by RefSeq, Oct 2008]

**Protein Families:**

Druggable Genome, Transmembrane

**Protein Pathways:**

Cytokine-cytokine receptor interaction