

**4-1BBL/TNFSF9**  
Catalog # PVGS1635

**Specification**

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**4-1BBL/TNFSF9 - Product Information**

Primary Accession [P41273](#)  
Species  
Human

Sequence  
Arg71-Glu254

Purity  
> 95% as analyzed by SDS-PAGE

Endotoxin Level  
≤ 1 EU/ µg of protein by LAL method

Expression System  
E. coli

Formulation **Lyophilized from a 0.2 µm filtered solution in 20 mM Tris-HCl, 150 mM NaCl, pH 7.4.**

**Reconstitution**  
It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in distilled water up to 100 µg/ml.

**Storage & Stability**  
Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4-7°C and up to 3 months at -20°C or below. Avoid repeated freeze-thaw cycles.

**4-1BBL/TNFSF9 - Additional Information**

Gene ID 8744

**Other Names**  
Tumor necrosis factor ligand superfamily member 9, 4-1BB ligand, 4-1BBL, TNFSF9

**Target Background**  
Tumor necrosis factor ligand superfamily member 9(4-1BBL) is single-pass type II membrane protein which is a member of the the tumor necrosis factor family. 4 1BBL is a 254 amino acids cytokine that is expressed in brain, placenta, lung, skeletal muscle and kidney. TNFSF9 has been shown to reactivate anergic T lymphocytes in addition to promoting T lymphocyte proliferation. This cytokine may have a role in activation-induced cell death (AICD) and cognate interactions between T-cells and B-cells/macrophages. It has also been shown to be required for the optimal CD8 responses in CD8 T cells, and is thought to be involved in T cell-tumor cell interaction.

## **4-1BBL/TNFSF9 - Protein Information**

**Name** TNFSF9

### **Function**

Cytokine that binds to TNFRSF9. Induces the proliferation of activated peripheral blood T-cells. May have a role in activation-induced cell death (AICD). May play a role in cognate interactions between T-cells and B-cells/macrophages.

### **Cellular Location**

Membrane; Single-pass type II membrane protein.

### **Tissue Location**

Expressed in brain, placenta, lung, skeletal muscle and kidney

## **4-1BBL/TNFSF9 - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## **4-1BBL/TNFSF9 - Images**