

# 4-1BB/CD137/TNFRSF9

Catalog # PVGS1163

## Product Information

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<b>Primary Accession Species</b>	<a href="#">Q07011</a> Human
<b>Sequence</b>	Glu18-Ser184
<b>Purity</b>	> 97% as analyzed by SDS-PAGE > 97% as analyzed by HPLC
<b>Endotoxin Level</b>	
<b>Biological Activity</b>	Fully biologically active when compared to standard. The biological activity is determined by its inhibitory effect of IL-8 production using human peripheral blood mononuclear cells. About 90 % of inhibition was seen using a concentration of 1.0 $\mu$ g for both 4-1BB Ligand and 4-1BB Receptor.
<b>Expression System</b>	E. coli
<b>Theoretical Molecular Weight</b>	17.7 kDa
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in 10 mM PB, pH 8.0, 150 mM NaCl.
<b>Reconstitution</b>	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml.
<b>Storage &amp; Stability</b>	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°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

## Additional Information

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<b>Gene ID</b>	3604
<b>Other Names</b>	Tumor necrosis factor receptor superfamily member 9, 4-1BB ligand receptor, CDw137, T-cell antigen 4-1BB homolog, T-cell antigen ILA, CD137, TNFRSF9, CD137, ILA
<b>Target Background</b>	4-1BB(CD137) is a member of the tumor necrosis factor (TNF) receptor family. Mature human 4-1BB consists of a 163 amino acid extracellular domain (ECD) with four TNFR cysteine rich repeats, a 27 aa transmembrane segment, and a 42 aa cytoplasmic domain; 4-1BB (CD137) is expressed as a disulfide-linked homodimer on various populations of activated T cell including CD4 <sup>+</sup> , CD8 <sup>+</sup> , memory CD8 <sup>+</sup> , NKT, and regulatory T cells as well as on myeloid and mast cell progenitors, dendritic cells, mast cells, and bacterially infected osteoblasts. It

binds with high affinity to the transmembrane 4-1BB Ligand/TNFSF9 which is expressed on antigen presenting cells and myeloid progenitor cells. This interaction co-stimulates the proliferation, activation, and/or survival of the 4-1BB expressing cell. It can also enhance the activation-induced cell death of repetitively stimulated T cells.

## Protein Information

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<b>Name</b>	TNFRSF9
<b>Synonyms</b>	CD137, ILA
<b>Function</b>	Receptor for TNFSF9/4-1BBL. Conveys a signal that enhances CD8(+) T-cell survival, cytotoxicity, and mitochondrial activity, thereby promoting immunity against viruses and tumors (Probable).
<b>Cellular Location</b>	Cell membrane; Single-pass type I membrane protein
<b>Tissue Location</b>	Expressed on the surface of activated T-cells.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.