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4-1BB/CD137/TNFRSF9

Catalog # PVGS1163

Product Information

Primary Accession	Q07011
Species	Human
Sequence	Glu18-Ser184
Purity	> 97% as analyzed by SDS-PAGE > 97% as analyzed by HPLC
Endotoxin Level	
Biological Activity	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 inibition was seen using a concentration of 1.0 μg for both 4-1BB Ligand and 4-1BB Receptor.
Expression System	E. coli
Theoretical Molecular Weight	17.7 kDa
Formulation	Lyophilized from a 0.2 μm filtered solution in 10 mM PB, pH 8.0, 150 mM NaCl.
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 sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/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°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

Additional Information

Gene ID	3604
Other Names	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
Target Background	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 $CD4^+$, $CD8^+$, memory $CD8^+$, 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

Name	TNFRSF9
Synonyms	CD137, ILA
Function	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).
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Expressed on the surface of activated T-cells.