

4-1BB/CD137/TNFRSF9
Catalog # PVGS1545**Specification**

4-1BB/CD137/TNFRSF9 - Product Information

Primary Accession [Q07011](#)
Species
Human

Sequence
Leu24-Gln186

Purity
> 95% as analyzed by SDS-PAGE

Endotoxin Level
< 0.2 EU/ µg of protein by gel clotting method

Biological Activity
Measured by its binding ability in a ligand-receptor binding ELISA. When recombinant 4-1BB/CD137/TNFRSF9, hFc, Human is Immobilized at 1.0 µg/ml (100 µl/well), the concentration of recombinant human 4-1BB Ligand that produces 50% optimal binding response is found to be approximately 5.0-15.0 ng/ml.

Expression System
CHO

Formulation **Lyophilized from a 0.2 µm filtered solution in PBS.**

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 ddH₂O or PBS up to 100 µg/ml.

Storage & Stability
Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

4-1BB/CD137/TNFRSF9 - 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.

4-1BB/CD137/TNFRSF9 - 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.

4-1BB/CD137/TNFRSF9 - 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](#)

4-1BB/CD137/TNFRSF9 - Images