

## 37-1046: Human CD137 / 4-1BB / TNFRSF9 Recombinant Protein (His & Fc Tag)(Discontinued)

**Reactivity :** Human

**Alternative Name :** 4-1BB Protein, CD137 Protein, CDw137 Protein, ILA Protein,

### Description

#### Source : HEK293 Cells

CD137 (also known as 4-1BB) is a surface co-stimulatory glycoprotein originally described as present on activated T lymphocytes, which belongs to the tumor necrosis factor (TNF) receptor superfamily. It is expressed mainly on activated CD4+ and CD8+ T cells, and binds to a high-affinity ligand (4-1BBL) expressed on several antigen-presenting cells such as macrophages and activated B cells. Upon ligand binding, 4-1BB is associated with the tumor necrosis factor receptor-associated factors (TRAFs), the adaptor protein which mediates downstream signaling events including the activation of NF-kappaB and cytokine production. 4-1BB signaling either by binding to 4-1BBL or by antibody ligation delivers signals for T-cell activation and growth, as well as monocyte proliferation and B-cell survival, and plays an important role in the amplification of T cell-mediated immune responses. In addition, CD137 and CD137L are expressed in different human primary tumor tissues, suggesting that they may influence the progression of tumors. Crosslinking of CD137 on activated T cells has shown promise in enhancing anti-tumor immune responses in murine models, and agonistic anti-CD137 antibodies are currently being tested in phase I clinical trials. Soluble forms of CD137 (sCD137) are generated by differential splicing. sCD137 can bind to CD137 ligand to antagonize the costimulatory activities of the membrane-bound CD137 and reduce T cell proliferation and IL-2 secretion. Cancer Immunotherapy Co-stimulatory Immune Checkpoint Targets Immune Checkpoint Immune Checkpoint Detection: Antibodies Immune Checkpoint Detection: ELISA Antibodies Immune Checkpoint Proteins Immune Checkpoint Targets Immunotherapy Targeted Therapy

### Product Info

**Amount :** 1BB / TNFRSF9 Recombinant Protein (His & Fc Tag)(Discontinued) / 200 µg

**Purification :** > 95 % as determined by SDS-PAGE

**Content :** Formulation Lyophilized from sterile PBS, pH 7.4  
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

**Storage condition :** Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

**Amino Acid :** Met1-Gln186

### Application Note

Measured by its binding ability in a functional ELISA. Immobilized recombinant Human 4-1BB-Fc at 10 µg/ml (100 µL/well) can bind human S4-Fc3L3-TNFSF9/Biotin with a linear range of 1.28-20 µg/ml.

Endotoxin : < 1.0 EU per µg of the protein as determined by the LAL method

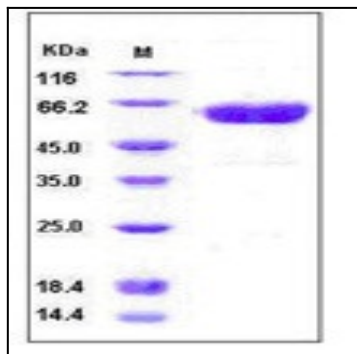


Fig 1: Human CD137 / 4-1BB / TNFRSF9 Recombinant Protein (His & Fc Tag)

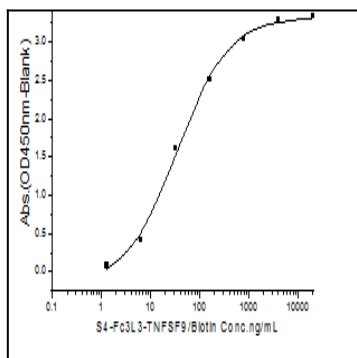


Fig 2: Human CD137 / 4-1BB / TNFRSF9 Recombinant Protein (His & Fc Tag) measured by its binding ability in a functional ELISA.