

TNFRSF9

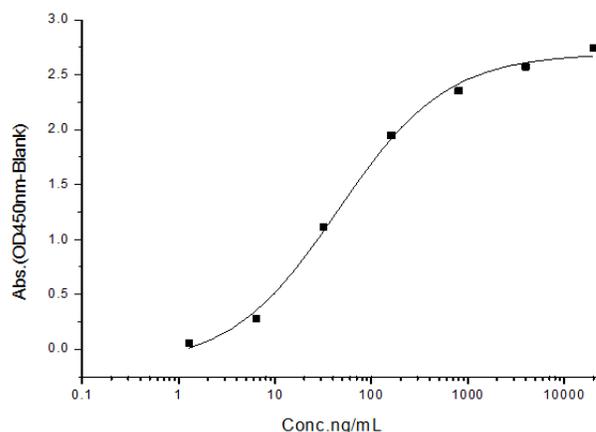
Recombinant Human CD137 / 4-1BB / TNFRSF9 (ECD, His & Fc Tag)

Catalog No.	CRH382A-HisFc CRH382B-HisFc	Quantity:	100 µg 200 µg
Alternate Names:	Tumor necrosis factor receptor superfamily member 9, 4-1BB ligand receptor, CDw137, T-cell antigen 4-1BB homolog, T-cell antigen ILA		
Description:	<p>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.</p>		
UniProt ID:	Q07011		
Accession Number:	NP_001552.2		
Protein Construction:	A DNA sequence encoding the N-terminal fragment (Met 1-Gln 186) of the extracellular domain of human 4-1BB (NP_001552.2) was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.		
Source:	HEK293 Cells		
Formulation:	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.		
Molecular Weight:	The recombinant human 4-1BB/Fc chimera is a disulfide-linked homodimeric protein. The reduced monomer consists of 409 amino acids and has a calculated molecular mass of 45.2 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh4-1BB/Fc monomer is approximately 60-65 kDa due to glycosylation.		
Purity:	> 95 % as determined by SDS-PAGE.		

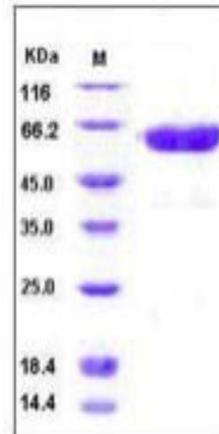


- Endotoxin Level:** < 1.0 EU per μg protein as determined by the LAL method.
- Biological Activity:** Measured by its binding ability in a functional ELISA. Immobilized 4-1BB-Fch at $10 \mu\text{g/ml}$ ($100 \mu\text{l/well}$) can bind TNFSF9/Biotin, The EC50 of TNFSF9/Biotin is 20-60 ng/mL.
- Predicted N-terminal:** Gln 25
- Reconstitution:** **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial. **DO NOT VORTEX.** Allow several minutes for complete reconstitution.
- Storage & Stability:** Stable for up to 1 year from date of receipt at -20°C to -80°C . After reconstitution, store working aliquots at -20°C to -80°C . **Avoid repeated freeze-thaw cycles.**

Measured by its binding ability in a functional ELISA. Immobilized recombinant Human 4-1BB-Fch at $10 \mu\text{g/ml}$ ($100 \mu\text{l/well}$) can bind humanS4-Fc3L3-TNFSF9/Biotin with a linear range of 1.28-20 $\mu\text{g/ml}$.



SDS-PAGE



NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.