

Active Recombinant Human TNFRSF9 Protein, Fc-tagged

Cat. No. TNFRSF9-134H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human TNFRSF9 Protein extracellular domain 24-186aa (signal peptide removed), fused with a C-terminal Fc tag, was expressed in CHO.
Species	Human
Source	CHO
ProteinLength	24-186 a.a.
Description	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

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	trials.
Predicted N Terminal	Leu 24
Form	Lyophilized from sterile PBS, pH 7.4.
Bio-activity	Measured by its binding ability in a functional ELISA.
Molecular Mass	The recombinant mature human protein consists of 395 amino acids and has a calculated molecular mass of 43.3 KD.
Endotoxin	<1.0EU/ug, LAL method
Purity	>95% (SDS-PAGE)
Stability	Samples are stable for up to twelve months from date of receipt at -70°C.
Storage	Store it under sterile conditions at -20°C~-70°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

GENE INFORMATION

Gene Name	TNFRSF9 tumor necrosis factor receptor superfamily, member 9 [Homo sapiens]
Official Symbol	TNFRSF9
Synonyms	TNFRSF9; tumor necrosis factor receptor superfamily, member 9; ILA; tumor necrosis factor receptor superfamily member 9; 4 1BB; CD137; CD137 antigen; T cell antigen

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	ILA; T-cell antigen ILA; 4-1BB ligand receptor; homolog of mouse 4-1BB; receptor protein 4-1BB; T-cell antigen 4-1BB homolog; induced by lymphocyte activation (ILA); interleukin-activated receptor, homolog of mouse Ly63; 4-1BB; CDw137; MGC2172; FLJ43501;
Gene ID	3604
mRNA Refseq	NM_001561
Protein Refseq	NP_001552
MIM	602250
UniProt ID	Q07011
Chromosome Location	1p36
Pathway	Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Downstream signaling in naive CD8+ T cells, organism-specific biosystem;
Function	binding; receptor activity;