Recombinant Human TNFRSF9 Protein (Met1-Gln186), His-Fc-tagged, Biotinylated

Cat. No. TNFRSF9-328H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human TNFRSF9 Protein (NP_001552.2) (Met1-Gln186) was produced by HEK293 Cells expression system. This protein was expressed with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus. The purified protein was biotinylated in vitro.
Species	Human
Source	HEK293
ProteinLength	Met1-Gln186
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

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	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.
Predicted N Terminal	Leu 24
Form	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Molecular Mass	The recombinant TNFRSF9 consists of 410 amino acids and predicts a molecular mass of 45.2 kDa.
Endotoxin	< 1.0 EU per μg protein as determined by the LAL method.
Purity	> 85 % as determined by SDS-PAGE.
Stability	Samples are stable for up to twelve months from date of receipt at -70 centigrade.
Storage	Store it under sterile conditions at -20 centigrade to -80 centigrade. 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 mg/ml. Centrifuge the vial at 4℃ before opening to recover the entire contents.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

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Conjugation	Biotin

GENE INFORMATION

Gene Name	TNFRSF9 tumor necrosis factor receptor superfamily, member 9 [Homo sapiens]
Official Symbol	TNFRSF9
Synonyms	TNFRSF9; ILA; 4 1BB; CD137; CD137 antigen; T cell antigen ILA; 4-1BB; CDw137; MGC2172; FLJ43501;
Gene ID	3604
mRNA Refseq	NM_001561
Protein Refseq	NP_001552
MIM	602250
UniProt ID	Q07011

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