

CD137 Active Protein | TNFRSF9 active protein

CD137 Protein, Human, Recombinant (ECD, hFc Tag)

CATALOG #
AAA257818

HOST
HEK293 Cells

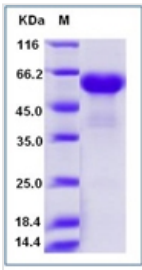
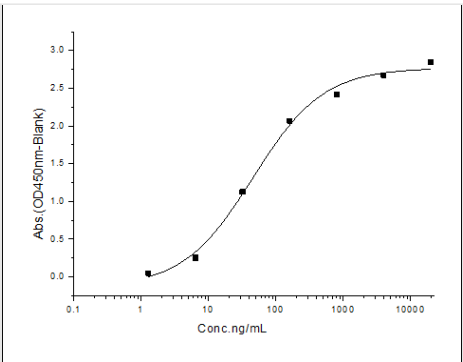
PRODUCT SYNONYMS

CD137; CD137 Protein; Human; Recombinant (ECD, hFc Tag); Human CD137/4-1BB Protein (ECD, Fc Tag); 4-1BB Protein; CDw137 Protein; ILA Protein; tumor necrosis factor receptor superfamily; member 9; TNFRSF9 active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>95% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Sequence	Met1-Gln18 6
Species	Human
Endotoxin	<1.0EU per ug protein as determined by the LAL method.
Predicted N Terminal	Leu 24
Tag	C-human IgG1-Fc
Protein Construction	A DNA sequence encoding the human TNFRSF9 (NP_001552.2)(Met1-Gln186) was expressed with the Fc region of human IgG1 at the C-terminus.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Activity	Measured by its binding ability in a functional ELISA. Immobilized TNFRSF9-Fc at 10ug/ml(100uL/well) can bind TNFSF9/Biotin. The EC50 of TNFSF9/Biotin is 20-60ng/mL.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. 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.

IMAGES



SDS-PAGE

Application Data
Measured by its binding ability in a functional ELISA. Immobilized recombinant Human TNFRSF9-Fc-10041-H02H at 10 ug/ml (100 ul/well) can bind human S4-Fc3L3-TNFSF9/Biotin with a linear range of 1.28-20 ug/ml.

ADDITIONAL INFORMATION

Related Product Information for TNFRSF9 active protein	Background: 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.
Product Categories/Family for TNFRSF9 active protein	Cancer Drug Targets
References	Sica G, et al. (1999) Biochemical and immunological characteristics of 4-1BB (CD137) receptor and ligand and potential applications in cancer therapy. Arch Immunol Ther Exp (Warsz). 47(5): 275-9.Nam KO, et al. (2005) The therapeutic potential of 4-1BB (CD137) in cancer. Curr Cancer Drug Targets. 5(5): 357-63.Wang Q, et al. (2008) Analysis of CD137 and CD137L expression in human primary tumor tissues. Croat Med J. 49(2): 192-200.Melero I, et al. (2008) Multi-layered action mechanisms of CD137 (4-1BB)-targeted immunotherapies. Trends Pharmacol Sci. 29(8): 383-90.Thum E, et al. (2009) CD137, implications in immunity and potential for therapy. Front Biosci. 14: 4173-88.

NCBI AND UNIPROT INFORMATION

NCBI GI #	5730095
NCBI GeneID	3604
NCBI Accession #	NP_001552.2
NCBI GenBank Nucleotide #	NM_001561.5
UniProt Accession #	Q07011; AAB34924
Molecular Weight	27,899 Da
NCBI Official Full Name	tumor necrosis factor receptor superfamily member 9
NCBI Official Synonym Full Names	tumor necrosis factor receptor superfamily, member 9

NCBI Official Symbol	TNFRSF9
NCBI Official Synonym Symbols	ILA; 4-1BB; CD137; CDw137
NCBI Protein Information	tumor necrosis factor receptor superfamily member 9; CD137 antigen; T cell antigen 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); interl
UniProt Protein Name	Tumor necrosis factor receptor superfamily member 9
UniProt Gene Name	TNFRSF9
UniProt Synonym Gene Names	CD137; ILA
UniProt Entry Name	TNR9_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/hek293-cells-tnfrsf9-active-protein/cd137/257818>