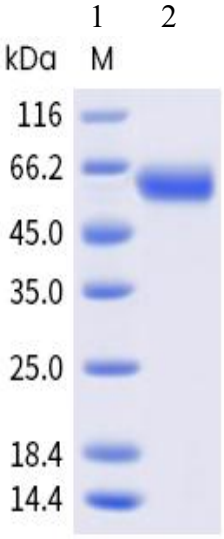
Aurora Biolabs
High Purity Protein for Research

Recombinant Human CD137

Catalog Number: 2323137

Product Name	Recombinant Human CD137
Synonym(s)	4-1BB; TNFRSF9; CDw137; ILA
Quantity	100 μg, 1 mg
Species	Human
Class Type	Recombinant Protein
Molecular weight	~58.9 kDa (due to glycosylation), 44.0 kDa (predicted)
Purity	≥ 95% by SDS-PAGE, ≥ 95% by SEC-HPLC
Tag	C-terminal human IgG1 Fc tag
Expression Source	HEK293
GenBank Accession #	NP_001552.2, Met1-Gln186
Application	Western Blotting, Functional Studies
Endotoxin	<1.0 EU/μg protein as determined by the LAL method.
Formulation	Lyophilized from sterile PBS, pH7.4
Storage and Stability	Stable for 12 months at -80°C, Avoid freeze/thaw cycles

SDS-PAGE gel



1 – MW Marker
2 – CD137

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 NFkappaB 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.
Reference	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.

Related products:

Product Name	Catalog #	Size
Recombinant Human PD-L1	237351	100 ug
Recombinant Human CD40	232340	100 ug
Recombinant Human CD40L	2323405	100 ug
Recombinant Human CD70	232370	100 ug
Recombinant Human CD155	2323155	100 ug
Recombinant Human SIRP-alpha	2374772	100 ug
Recombinant Human OX40	236940	100 ug
Recombinant Human OX40L	2369405	100 ug
DNA Polymerase Theta Activity Assay Kit	362101	96 reactions
DNA Polymerase Theta-N-Helicase Domain	7657643	20 ug, 100 ug
DNA Polymerase Theta-C terminal Domain	7657283	20 ug, 100 ug, 1 mg
DNA Polymerase Theta Full Length protein	7657385	10 ug, 50 ug
T7 RNA polymerase	777627	5000 U, 25000U, 100000U
T7 High Yield RNA Synthesis Kit	777627-RK	25 rxns, 50 rxns, 100 rxns
Recombinant Mouse Leukemia Inhibitory Factor (mLIF)	11-0001	10 ug, 100 ug
Recombinant Human LIF	12-0002	10 ug, 100 ug, 1 mg
Recombinant Human LIF, Animal-Free	12-0002AFR	10 ug, 100 ug, 1 mg
Recombinant Human FGF-basic, Carrier-free	12-0005CFR	50 ug, 100 ug, 500 ug, 1 mg
Kras Wild Type (WT), GST-tag	5727-4121G	50 µg, 100 µg
Kras WT, GST-tag, GDP Loaded	5727-WTG-G	50 µg, 100 µg
Kras WT, GST-tag, GppNHp loaded	5727-WTG-GP	50 µg, 100 µg
Kras G12C, GST-tag	5727-4122G	50 µg, 100 µg
Kras G12C, GST-tag, GDP Loaded	5727-4122G -G	50 µg, 100 µg
Kras G12C, GST-tag, GppNHp loaded	5727-4122G -GP	50 µg, 100 µg
Kras G12C Nucleotide Exchange Assay Kit	5727-4122NK	384 reactions
Kras G12C – cRAF Binding Assay Kit	5727-4122BK	384 reactions

Human RBD-RAF1, N-His tag, C-FLAG tag	7237231	50 μg, 100 μg
Human SOS1, No Tag	7671	50 μg, 100 μg
Human SOS1, His-Avi-Tag	7671HA	50 μg, 100 μg

This product is for research use only and not for diagnostic or therapeutic use.