Datasheet for ABIN2180841

CD80 Protein (CD80) (AA 35-242) (His tag)

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3 Images

Overview

Quantity:	100 µg
Target:	CD80
Protein Characteristics:	AA 35-242
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This CD80 protein is labelled with His tag.

Product Details

Sequence:	AA 35-242
Characteristics:	This protein carries a polyhistidine tag at the C-terminus. The protein has a calculated MW of 24.7 kDa. The protein migrates as 44-50 kDa under reducing (R) condition (SDS-PAGE) due to different glycosylation.
Purity:	>90 % as determined by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

Target:	CD80

Target Details

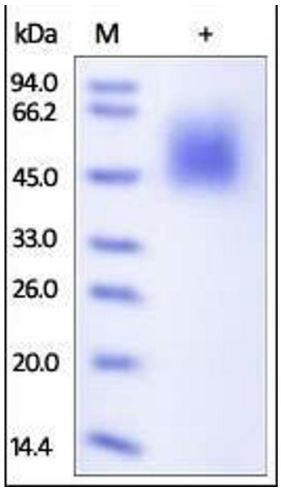
Alternative Name:	B7-1 (CD80 Products)
Background:	B7-1 and B7-2, together with their receptors CD28 and CTLA-4, constitute one of the dominant co-stimulatory pathways that regulate T- and B-cell responses. Although both CTLA-4 and CD28 can bind to the same ligands, CTLA-4 binds to B7-1 and B7-2 with a 20 - 100 fold higher affinity than CD28 and is involved in the down-regulation of the immune response. B-lymphocyte activation antigen B7-1 (referred to as B7) also known as cluster of Differentiation 80 (CD80), is a member of cell surface immunoglobulin superfamily and is expressed on activated B cells, activated T cells, macrophages and dendritic cells. It is the ligand for two different proteins on the T cell surface: CD28 (for autoregulation and intercellular association) and CTLA-4 (for attenuation of regulation and cellular disassociation). CD80 works in tandem with CD86 to prime T cells. CD80 plays a role in induction of innate immune responses by activating NF-κB-signaling pathway in macrophages. CD80 is thus regarded as promising therapeutic targets for autoimmune diseases and various carcinomas.
Molecular Weight:	25.8 kDa
NCBI Accession:	NP_005182
Pathways:	TCR Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Positive Regulation of Immune Effector Process, Cancer Immune Checkpoints

Application Details

Restrictions:	For Research Use only

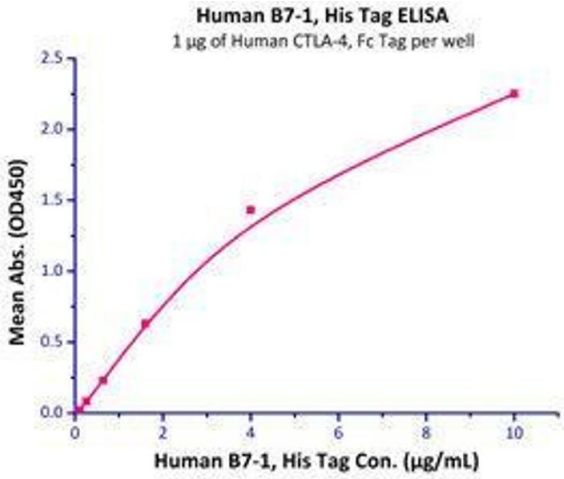
Handling

Format:	Lyophilized
Buffer:	PBS, pH 7.4
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C
Storage Comment:	No activity loss was observed after storage at: In lyophilized state for 1 year (4 °C-8 °C), After reconstitution under sterile conditions for 1 month (4 °C-8 °C) or 3 months (-20 °C to -70 °C).



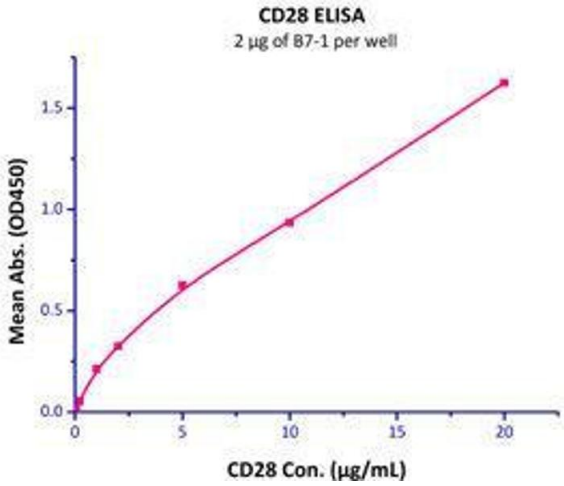
SDS-PAGE

Image 1. Human B7-1, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.



Binding Studies

Image 2. Immobilized Human CTLA-4, Fc Tag (Cat# CT4-H5255) at 10 µg/mL (100 µl/well),can bind Human B7-1, His Tag (Cat# B71-H5228) with a linear range of 0.04-4 µg/mL.



Binding Studies

Image 3. Immobilized Human B7-1, His Tag (Cat# B71-H5228) at 20 µg/mL (100 µl/well),can bind Human CD28, Fc Tag (Cat# CD8-H5257) with a linear of 0.2-20 µg/mL.