

Recombinant Cynomolgus/Rhesus macaque CD80 protein, Fc-tagged

Cat. No. CD80-137C Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Cynomolgus/Rhesus macaque CD80 (Val35-Asn242) protein was fused to human IgG1 Fc tag at C-terminus and expressed in human 293 cells (HEK293).

Species Cynomolgus/Rhesus macaque

Source HEK293

ProteinLength Val35-Asn242

Description

B7-1 and B7-2, together with their receptors CD28 and CTLA4, constitute one of the dominant co-stimulatory pathways that regulate T and B cell responses. Although both CTLA4 and CD28 can bind to the same ligands, CTLA4 binds to B71 and B72 with a 20-100 fold higher affinity than CD28 and is involved in the downregulation 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- κ B-signaling pathway in macrophages. CD80 is thus regarded as promising therapeutic targets for autoimmune diseases and various carcinomas.

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Predicted N Terminal	Val35
Form	Lyophilized from 0.22 µm filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5, 10% trehalose.
Molecular Mass	The protein has a calculated MW of 50.5 kDa. The protein migrates as 60-90 kDa under reducing (R) condition (SDS-PAGE) due to different glycosylation.
Endotoxin	Less than 1.0 EU per µg by the LAL method.
Purity	>95% as determined by reduced SDS-PAGE.
Storage	For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution.
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	CD80
Official Symbol	CD80
Synonyms	CD80; CD80 antigen; T-lymphocyte activation antigen CD80; B7 protein; activation B7-1 antigen; B71; Ly53; TSA1; Cd28l; Ly-53; MIC17

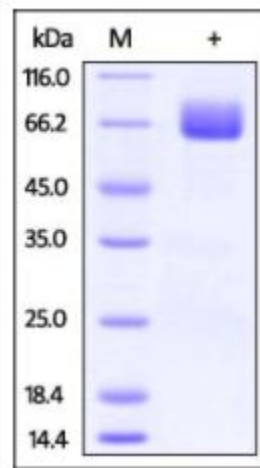
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Gene ID	102140078
mRNA Refseq	XM_015446388.1
Protein Refseq	XP_015301874.1
UniProt ID	F7HRG1

SDS-PAGE of CD80-137C



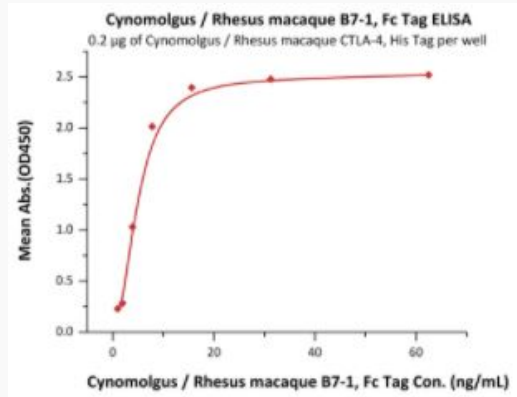
Cynomolgus / Rhesus macaque B7-1, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

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**Bioactivity-ELISA of
CD80-137C**



Immobilized Cynomolgus / Rhesus macaque CTLA-4, His Tag at 2 µg/mL (100 µL/well) can bind Cynomolgus / Rhesus macaque B7-1, Fc Tag with a linear range of 1-8 ng/mL (QC tested).

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