

Active Recombinant Monkey CD80 Protein, Fc-tagged

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

SPECIFICATION

Product Overview	Cynomolgus/Rhesus macaque B7-1, Fc Tag is expressed from human 293 cells (HEK293). It contains AA Val 35 - Asn 242 (Accession # G7NXN7). In the region Val 35 - Asn 242, the AA sequence of Cynomolgus and Rhesus macaque B7-1 are homologous. This protein carries a human IgG1 Fc tag at the C-terminus. Predicted N-terminus: Val 35
Species	Monkey
Source	HEK293
ProteinLength	35-242 aa
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 B7-1 and B7-2 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-κB-signaling pathway in macrophages. CD80 is thus regarded as

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	promising therapeutic targets for autoimmune diseases and various carcinomas.
Form	Lyophilized from 0.22 µm filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5 with trehalose as protectant.
Bio-activity	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.
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/µg by the LAL method/rFC method.
Purity	>95% as determined by SDS-PAGE. >95% as determined by SEC-MALS.
Storage	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. For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please 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 µg/µL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.

GENE INFORMATION

Gene Name	CD80 CD80 molecule [<i>Macaca mulatta</i>]
Official Symbol	CD80

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Synonyms	CD80; CD80 molecule; T-lymphocyte activation antigen CD80; B7.1
Gene ID	732518
mRNA Refseq	NM_001042642
Protein Refseq	NP_001036107
UniProt ID	G7NXN7
SDS-PAGE.	