

Human CellExp™ Biotinylated CD80/B7-1, Human Recombinant

06/21

CATALOG NO:	P1672-10 10 µg P1672-50 50 µg
ALTERNATE NAMES:	T-lymphocyte activation antigen CD80, B7-1, Activation B7-1 antigen, BB1, CTLA-4 counter-receptor B7.1, B7
MOL. WT.	~51 kDa (Human Fc Tag fused to C-terminus, biotinylated)
SOURCE:	HEK 293 Cells
PURITY:	>95% SDS-PAGE
FORM:	Lyophilized
FORMULATION:	Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4) with 5% trehalose
SPECIFIC ACTIVITY:	Biotinylated CD-80-Fc can bind to immobilized Human CD28, Fc Tag (Cat. No. 9237 coated at 1 µg/mL, 100 µL/well) with a linear range of 0.03 – 0.81 µg/mL
STORAGE CONDITIONS:	Store lyophilized protein at -20 °C. Once reconstituted, aliquot and store at -20 °C or -70 °C. Avoid repeated freeze-thaw cycles.
DESCRIPTION:	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). 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. CD80 works in tandem with CD86 to prime T cells and plays a role in induction of innate immune responses by activating NF-κB-signaling pathway in macrophages. Additionally, the up-regulation of CD80 has been linked to various autoimmune diseases, including multiple sclerosis, systemic lupus erythematosus and sepsis. CD80 is thus regarded as promising therapeutic targets for autoimmune diseases and various carcinomas.
AMINO ACID SEQUENCE:	Val 35 - Asn 242

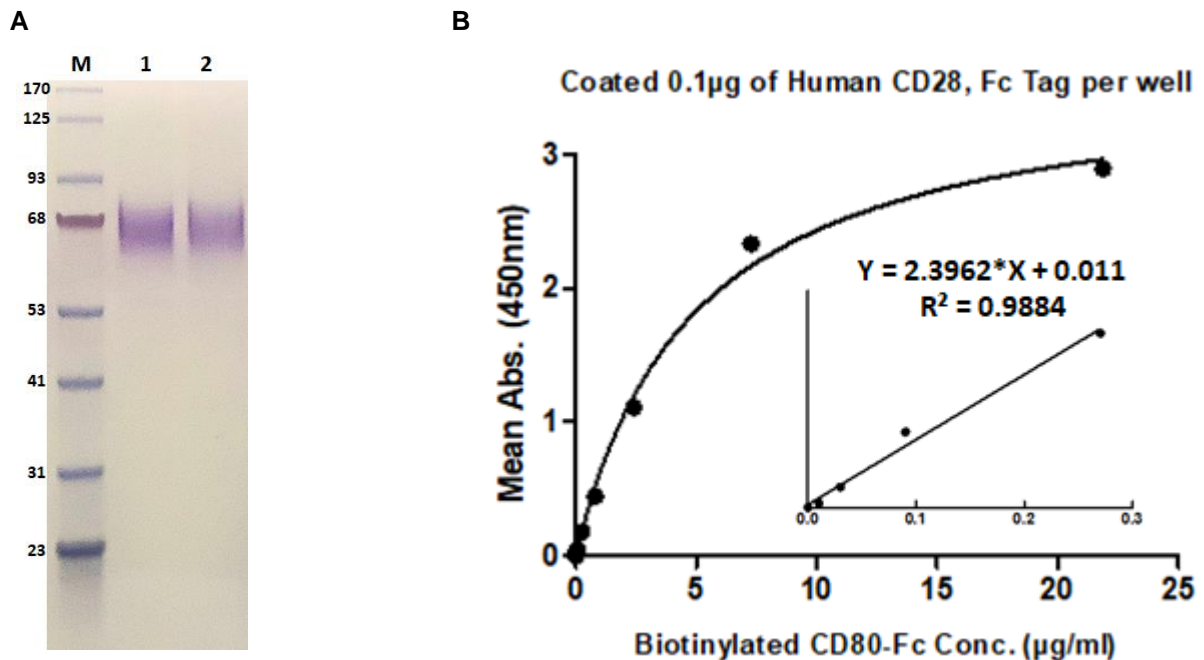


Fig. A. SDS-PAGE (4-20%): Biotinylated Human CD80, Fc-Tag protein was run on SDS PAGE gel under reducing (R) conditions and stained with Coomassie Blue. Lane M: Protein Marker, Lane 1: Human CD80 Fc Tag (2 µg), Lane 2: Biotinylated Human CD80 Fc Tag (2 µg). The protein migrates to around 65 kDa due to glycosylation.

Fig. B. CD28 and CD80-Biotin ELISA binding activity: Immobilized Human CD28, Fc Tag (Cat. No. 9237) at 1 µg/mL, 100 µL/well can bind to biotinylated CD80-Fc with a linear range of 0.03 – 0.81 µg/mL

RELATED PRODUCTS:

- Human CellExp™ CD28, Human/ Cynomolgus / Rhesus macaque Recombinant (Cat. No. P1471)
- Human CellExp™ CD28, Human Recombinant (Cat. No. 9237)
- Human CellExp™ Biotinylated CD28, Human Recombinant (Cat. No. P1669)
- Human CellExp™ CD80, Human Recombinant (Cat. No. P1668)
- Human CellExp™ CTLA4/CD152, human recombinant (Cat. No. 7476)
- Human CellExp™ B7-2 /CD86, human recombinant (Cat. No. 7496)

FOR RESEARCH USE ONLY! Not to be used on humans.