

Human CellExp™ B7-1/CD80, Human Recombinant

05/21

CATALOG NO:	P1668-10 10 µg P1668-50 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.	50 kDa, calculated (with human Fc Tag fused to C-terminus)
NCBI GENE ID:	941
ACCESSION NO.:	P33681
PURITY:	> 95% SDS-PAGE
SOURCE:	HEK 293 cells
FORM:	Lyophilized
FORMULATION:	Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4) with 5% trehalose
SPECIFIC ACTIVITY:	Human biotinylated CD28, Fc Tag (BioVision Cat. No. 9237) can bind to immobilized human CD80, Fc Tag at 1 µg/mL, 100 µL/well with a linear range of 0.01 – 0.27 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, also known as B7-1 and 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 and CD86 (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 CD80 and CD86 with a 20 to 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 a promising therapeutic target for autoimmune diseases and various carcinomas.
AMINO ACID SEQUENCE:	Val 35 - Asn 242

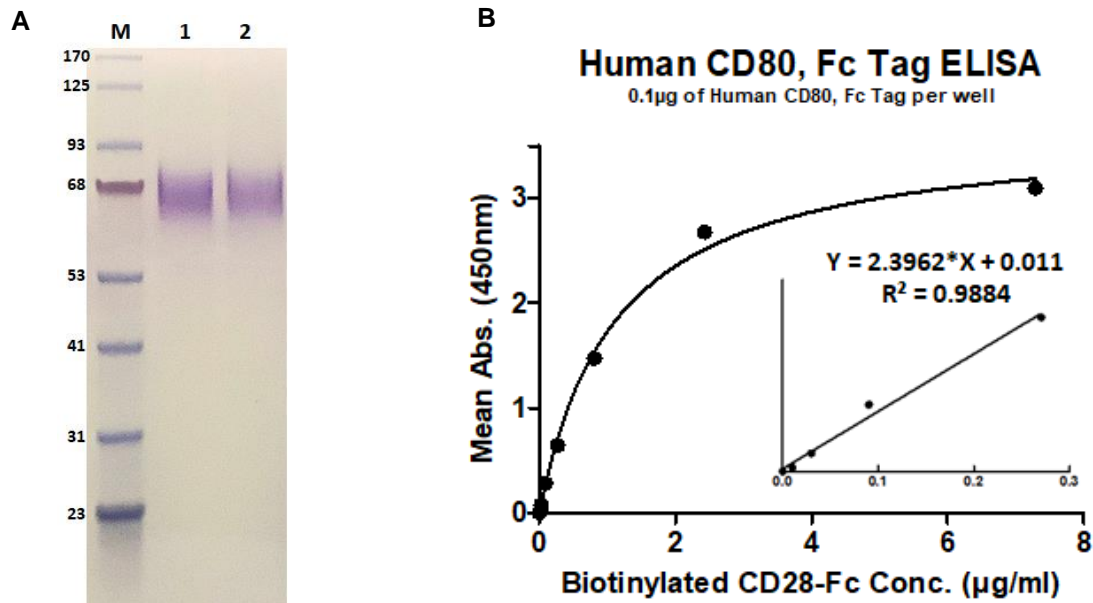


Fig. A. SDS-PAGE (4-20%): Human CD80, Fc-Tag protein was run on SDS PAGE gel under reducing (R) conditions and stained with Coomassie Blue. Lane M: Protein Marker, Lane 1: Human CD80 Fc Tag (2 µg), Lane 2: Biotinylated Human CD80 Fc Tag (2 µg). The proteins migrate to around 60 kDa due to glycosylation.

Fig. B. CD28-Biotin and CD80 ELISA binding activity: Human CD28 Fc Tag (Cat. No. 9237), after biotinylation, can bind to immobilized human CD80, Fc Tag at 1 µg/mL, 100 ng/well with a linear range of 0.01 – 0.27µg/mL.

RELATED PRODUCTS:

- Human CellExp™ CD28, Human Recombinant (Cat. No. 9237)
- Human CellExp™ CD28, Human/ Cynomolgus / Rhesus macaque Recombinant (Cat. No. P1471)
- Human CellExp™ CD28-Biotin, Human Recombinant (Cat. No. P1669)
- Human CellExp™ CD80-Biotin, Human Recombinant (Cat. No. P1672)
- Human CellExp™ Biotinylated PD-L1, Human Recombinant (Cat. No. P1422)
- Human CellExp™ CTLA4/CD152, Human Recombinant (Cat. No. 7476)
- Human CellExp™ B7-2 /CD86, Human Recombinant (Cat. No. 7496)
- Biotin Quantitation Kit (Colorimetric) (Cat. No. K811)
- EZLabel™ Protein Biotin Labeling Kit (Cat. No. K835)
- EZLabel™ Antibody Biotin Labeling Kit (Cat. No. K834)
- Human CellExp™ PD-L1 /CD274 /B7-H1, Human Recombinant (Cat. No. 7429)
- Human CellExp™ PD-1 /PDCD1, Human Recombinant (Cat. No. 7498)
- Human CellExp™ PD-1/PDCD1, C-Fc+His Tag, Human Recombinant (Cat. No. P1264)

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