

Human CellExp™ Biotinylated CD28, Human Recombinant

06/21

CATALOG NO:	P1669-10 10 µg P1669-50 50 µg
ALTERNATE NAMES:	T-cell-specific surface glycoprotein CD28, CD antigen: TP44, Tp44, T-Cell-Specific Surface Glycoprotein, CD28 Molecule
MOL. WT.	~42 kDa (Human Fc Tag fused to C-terminus, Biotinylated)
SOURCE:	HEK 293 Cells
PURITY:	> 95% SDS-PAGE
FORM:	Lyophilized
FORMULATION:	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4) with 5% Trehalose
SPECIFIC ACTIVITY:	Biotinylated human CD28-Fc can bind to immobilized Human CD80, Fc Tag (Cat. No. P1668 coated at 1 µg/mL, 100 µL/well) with a linear range 0.01 – 0.27µg/ml.
STORAGE CONDITIONS:	Store at -20 °C. Once reconstituted, aliquot and store at -20 °C or -70 °C for long term storage. Avoid repeated freeze and thaw cycles.
DESCRIPTION:	Human CD28 is composed of four exons encoding a protein of 220 amino acids that is expressed on the cell surface as a glycosylated, disulfide-linked homodimer of 44 kDa. Members of the CD28 family share a number of common features. These receptors consist of paired V-set immunoglobulin superfamily (IgSF) domains attached to single transmembrane domains and cytoplasmic domains that contain critical signaling motifs. The CD28 and CTLA4 ligands, CD80 and CD86, consist of single V-set and C1-set IgSF domains. The interaction of these costimulatory receptors with ligands is mediated through the MYPPPY motif within the receptor V-set domains. CD28 is expressed constitutively on almost all human CD4 T cells and approximately 50% of CD8 T cells. CD28 costimulation has diverse effects on T cell function, including biochemical events at the immunological synapse, downstream phosphorylation and other post-translational modifications, transcriptional changes, and cytoskeletal remodeling. At the most basic level, CD28 signals increase a cell's glycolytic rate, allowing cells to generate the energy necessary for growth and proliferation.
AMINO ACID SEQUENCE:	Asn 19 - Pro 152

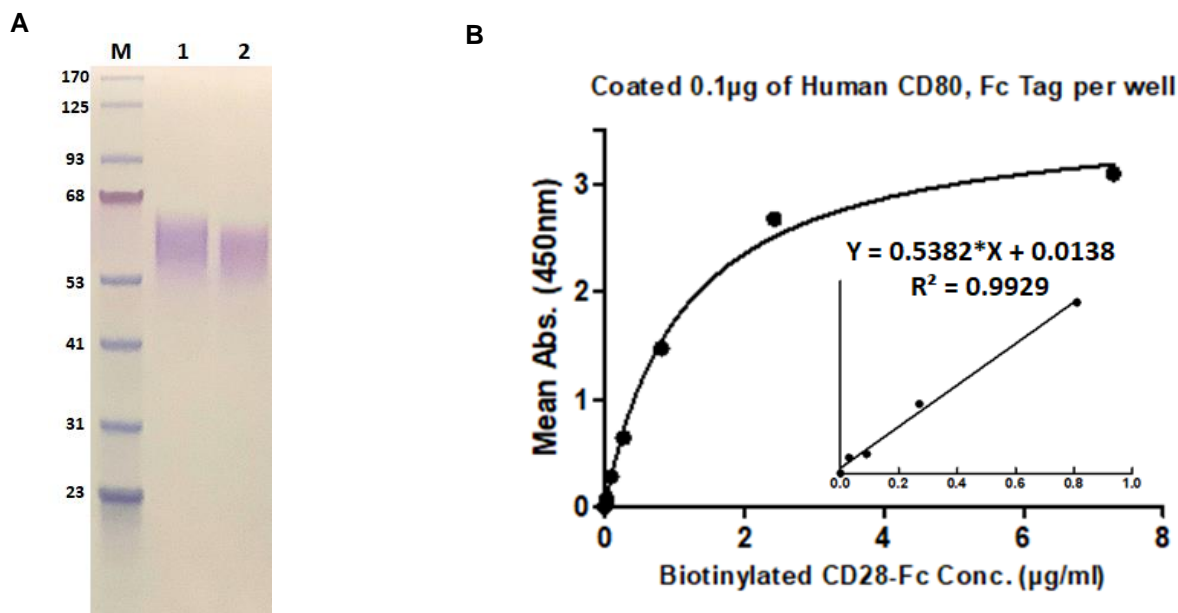


Fig. A. SDS-PAGE (4-20%): Biotinylated Human CD28, Fc-Tag protein was run on SDS PAGE gel under reducing (R) conditions and stained with Coomassie Blue. Lane M: Protein Marker, Lane 1: Biotinylated Human CD28 Fc Tag (2µg), Lane 2: Human CD28 Fc Tag (2µg). The protein migrates to around 55 kDa due to glycosylation.

Fig. B. CD28-Biotin and CD80 ELISA binding activity: Immobilized Human CD80, Fc Tag (Cat. No. P1668) at 1 µg/mL, 100 µL/well can bind to biotinylated CD28-Fc with a linear range 0.01 – 0.27µg/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 CD80/B7-1, Human Recombinant (Cat. No. P1672)
- 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.