Human CellExp™ CD28, Human/ Cynomolgus / Rhesus macaque Recombinant

CATALOG NO:

P1471-10	10 µg
P1471-50	50 µg

ALTERNATE NAMES: T-cell-specific surface glycoprotein CD28, CD antigen: TP44, Tp44, T-Cell-Specific Surface Glycoprotein, CD28 Molecule

MOL. WT. This protein is fused with a polyhistidine tag at the C-terminus with the calculated molecular weight of ~16 kDa. The predicted N-terminus is Asn 19 (UniProtKB – P10747 CD28_HUMAN). DTT-reduced protein shows a band about 35-45 kDa due to heavy glycosylation.

SOURCE: HEK 293 cells

PURITY: >90% SDS-PAGE

FORM: Lyophilized

FORMULATION: This protein is fused with a polyhistidine tag at the C-terminus with the calculated molecular weight of ~16 kDa. The predicted N-terminus is Asn 19 (UniProtKB – P10747 CD28_HUMAN). DTT-reduced protein shows a band about 35-45 kDa due to heavy glycosylation.

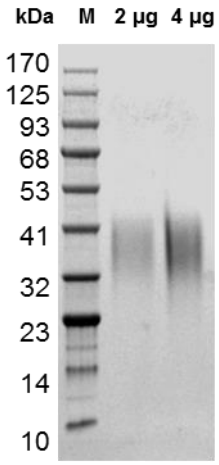
RECONSTITUTION: Centrifuge the vial prior to opening. Reconstitute in PBS, pH 7.4.

SPECIFIC ACTIVITY: Human biotinylated CD28 can bind to immobilized human CD86 (BioVision Cat# 7496 at 5 µg/ml, 100 µl/well) with a linear detection range of 0.08 to 0.6 ug/ml.

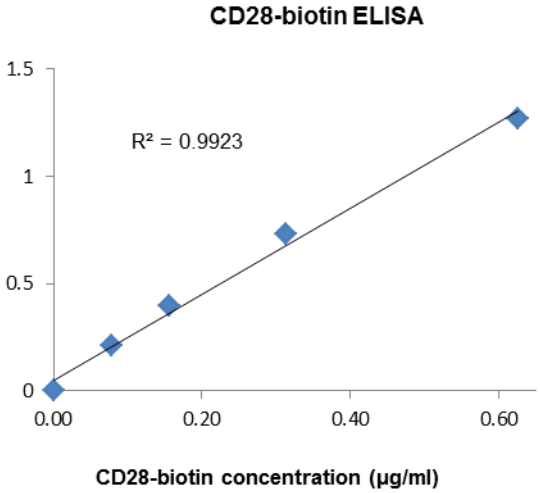
STORAGE CONDITIONS: Store at -20°C. After reconstitution with distilled water, aliquot and store at -20°C or -80°C for up to 6 months. Avoid repeated freeze and thaw.

DESCRIPTION: Human CD28 (Cluster of Differentiation 28) is expressed on the cell surface as a glycosylated, disulfide-linked homodimer. CD28 is the founding member of a subfamily of costimulatory molecules characterized by an extracellular variable immunoglobulin-like domain. Other members of the subfamily include ICOS, CTLA4, PD1, PD1H, and BTLA. CD28 and CTLA4 are highly homologous and compete for the same ligands B7-1 (CD80) and B7-2 (CD86). CD28 is expressed constitutively on almost all human CD4 T cells and approximately 50% of CD8 T cells. CD28 has diverse effects on T cell functions including the induction of cell proliferation and cytokine production and promotion of T-cell survival. Experiments showed that CD28 and CTLA4 have opposing effects on T cell stimulation. CD28 provides an activating signal and CTLA4 provides an inhibitory signal. Translation of a basic understanding of CD28 function into immunomodulatory therapeutics has been uneven, with both successes and failures from pre-clinical studies.

AMINO ACID SEQUENCE: Asn 19 - Pro 152



SDS-PAGE (4-20%) of Human CD28 Extracellular Domain, His-Tag: 2 µg and 4 µg of the recombinant CD28 protein is loaded under reducing conditions and stained with Coomassie Blue. Lane M: molecular weight marker, Lane 1 and Lane 2: 2 µg and 4 µg of the recombinant CD28 protein.



CD28-Biotin and CD86 ELISA binding activity: Human biotinylated CD28 can bind to immobilized human CD86 (BioVision Cat# 7496 at 5 µg/ml, 100 µl/well) with a linear detection range of 0.08 to 0.6 ug/ml.

RELATED PRODUCTS:

Human CellExp™ PD-1/PDCD1, human recombinant (Cat. No. P1264)
Human CellExp™ CD33, human recombinant (Cat. No. 7370)
Human CellExp™ Her2/ErbB2, human recombinant (Cat. No. P1160)
Human CellExp™ B7-2 /CD86, human recombinant (Cat. No. 7496)
Human CellExp™ CD36, human recombinant (Cat. No. 7371)

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