



Synonym

CD28, Tp44

Source

Human / Cynomolgus / Rhesus macaque CD28 Protein, His Tag (CD8-H52H3) is expressed from human 293 cells (HEK293). It contains AA Asn 19 - Pro 152 (Accession # [P10747-1](#)). In the region Asn 19 - Pro 152, the AA sequence of Human, Cynomolgus and Rhesus macaque CD28 are homologous.

Predicted N-terminus: Asn 19

Molecular Characterization

CD28(Asn 19 - Pro 152)
P10747-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 20.4 kDa. The protein migrates as 38-45 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

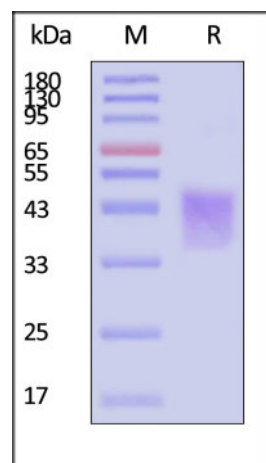
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

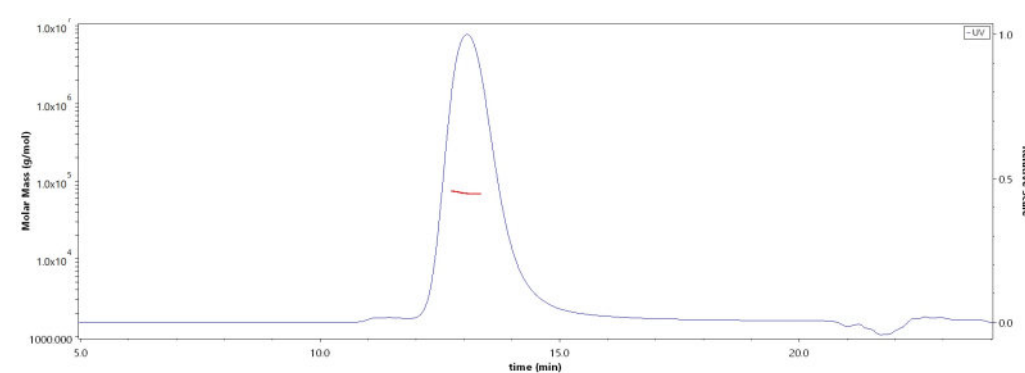
SDS-PAGE



Human / Cynomolgus / Rhesus macaque CD28 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-ELISA

SEC-MALS



The purity of Human / Cynomolgus / Rhesus macaque CD28 Protein, His Tag (Cat. No. CD8-H52H3) is more than 90% and the molecular weight of this protein is around 65-75 kDa verified by SEC-MALS.

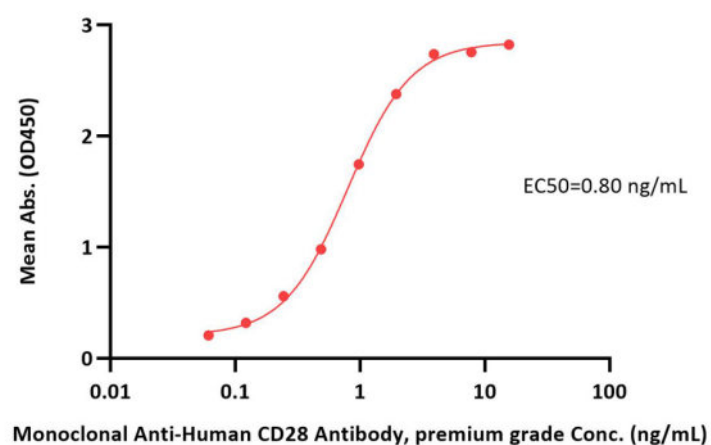
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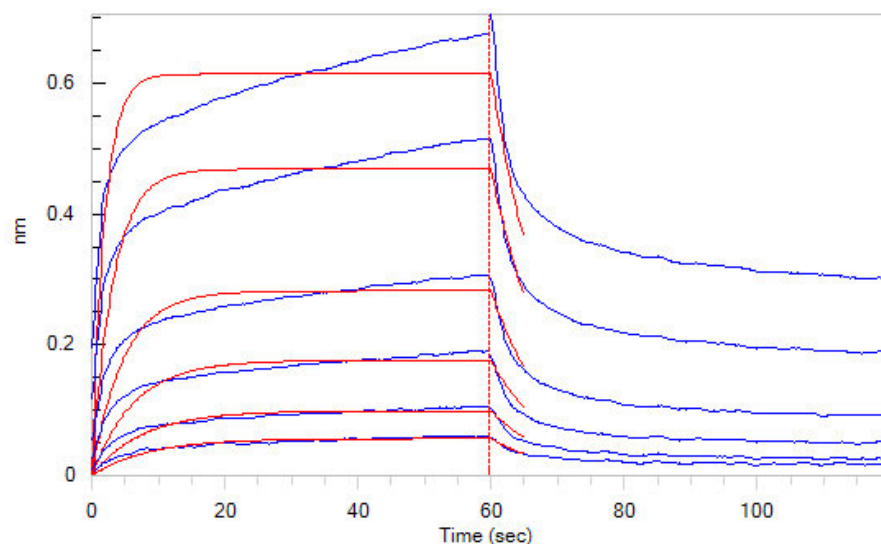


Human / Cynomolgus / Rhesus macaque CD28 Protein, His Tag ELISA
 0.2 µg of Human / Cynomolgus / Rhesus macaque CD28 Protein, His Tag per well



Immobilized Human / Cynomolgus / Rhesus macaque CD28 Protein, His Tag (Cat. No. CD8-H52H3) at 2 µg/mL (100 µL/well) can bind Monoclonal Anti-Human CD28 Antibody, premium grade (Cat. No. CD8-M120b) with a linear range of 0.01-1 ng/mL (QC tested).

Bioactivity-BLI



Loaded Human B7-1, Fc Tag (Cat. No. B71-H5259) on Protein A Biosensor, can bind Human / Cynomolgus / Rhesus macaque CD28 Protein, His Tag (Cat. No. CD8-H52H3) with an affinity constant of 4.5 µM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

T-cell-specific surface glycoprotein CD28 is also known as TP44, is a single-pass type I membrane protein which contains one Ig-like V-type (immunoglobulin-like) domain. is one of the molecules expressed on T cells that provide co-stimulatory signals, which are required for T cell activation. CD28 is the receptor for CD80 (B7.1) and CD86 (B7.2). When activated by Toll-like receptor ligands, the CD80 expression is upregulated in antigen presenting cells (APCs). The CD86 expression on antigen presenting cells is constitutive. CD28 is the only B7 receptor constitutively expressed on naive T cells.

Clinical and Translational Updates

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