



Synonym

CD28, Tp44

Source

Human / Cynomolgus / Rhesus macaque CD28, Mouse IgG2a Fc Tag (CD8-H52A5) 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	mFc(Glu 98 - Lys 330) P01863
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This protein carries a mouse IgG2a Fc tag at the C-terminus.

The protein has a calculated MW of 42.0 kDa. The protein migrates as 50-66 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.1 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, pH7.5 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

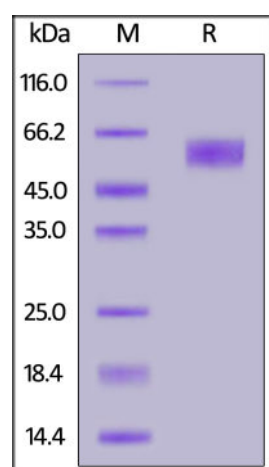
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

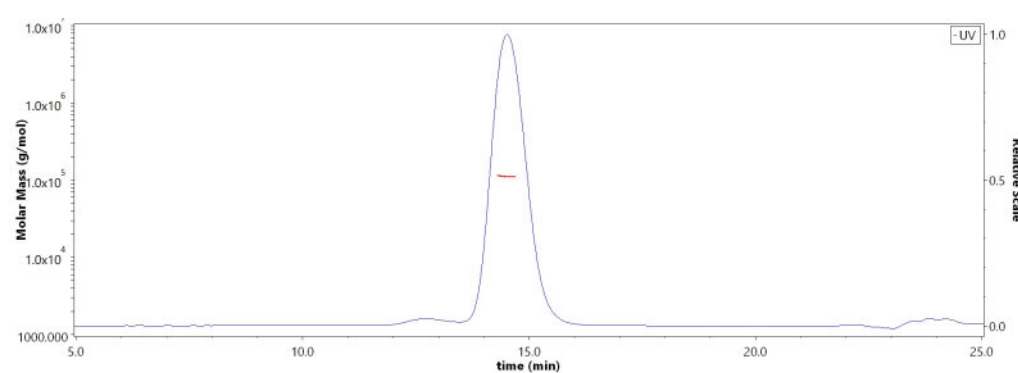
SDS-PAGE



Human / Cynomolgus / Rhesus macaque CD28, Mouse IgG2a Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA

SEC-MALS



The purity of Human / Cynomolgus / Rhesus macaque CD28, Mouse IgG2a Fc Tag (Cat. No. CD8-H52A5) is more than 90% and the molecular weight of this protein is around 99-121 kDa verified by SEC-MALS.

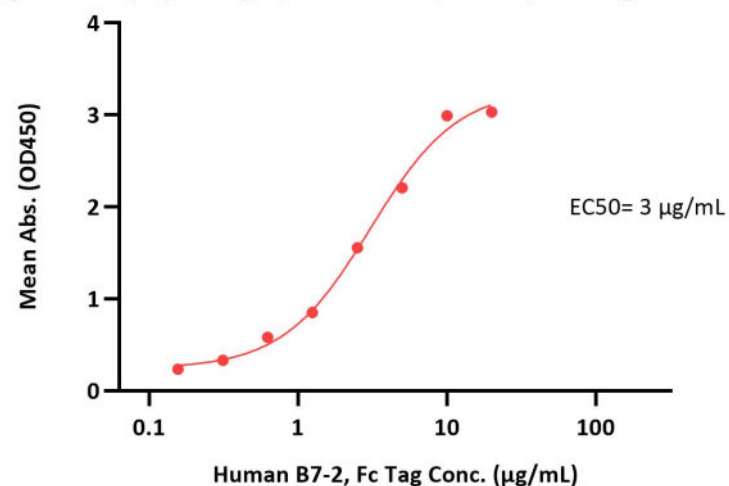
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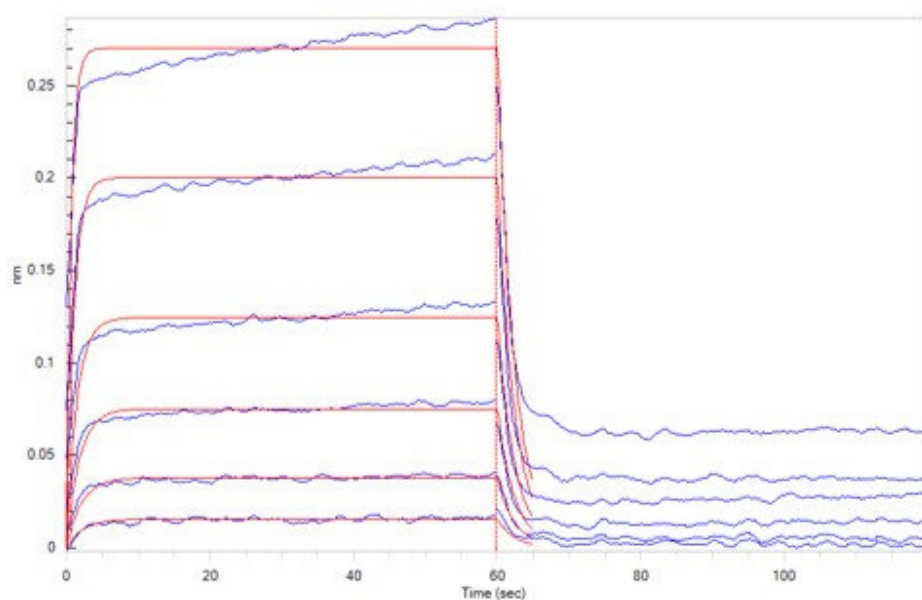


Human / Cynomolgus / Rhesus macaque CD28, Mouse IgG2a Fc Tag ELISA
 0.5 µg of Human / Cynomolgus / Rhesus macaque CD28, Mouse IgG2a Fc Tag per well



Immobilized Human / Cynomolgus / Rhesus macaque CD28, Mouse IgG2a Fc Tag (Cat. No. CD8-H52A5) at 5 µg/mL (100 µL/well) can bind Human B7-2, Fc Tag (Cat. No. CD6-H5257) with a linear range of 0.1-5 µg/mL (QC tested).

Bioactivity-BLI



Loaded Human / Cynomolgus / Rhesus macaque CD28, Mouse IgG2a Fc Tag (Cat. No. CD8-H52A5) on Protein A Biosensor, can bind Human B7-1, His Tag (Cat. No. B71-H5228) with an affinity constant of 1.66 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

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.

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