



Synonym

CD28, Tp44

Source

Human / Cynomolgus / Rhesus macaque CD28, Fc Tag (CD8-H525a) 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	Fc(Pro 100 - Lys 330) P01857
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This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 41.6 kDa. The protein migrates as 53-66 kDa under reducing (R) condition, and 100-120 kDa under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 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 Tris with Glycine, Arginine and NaCl, 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

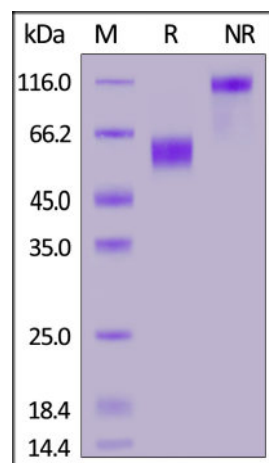
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

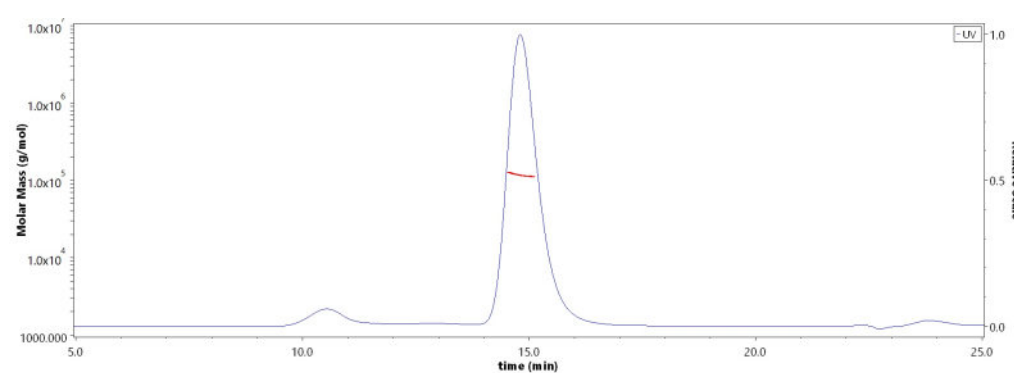
SDS-PAGE



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

Bioactivity-ELISA

SEC-MALS

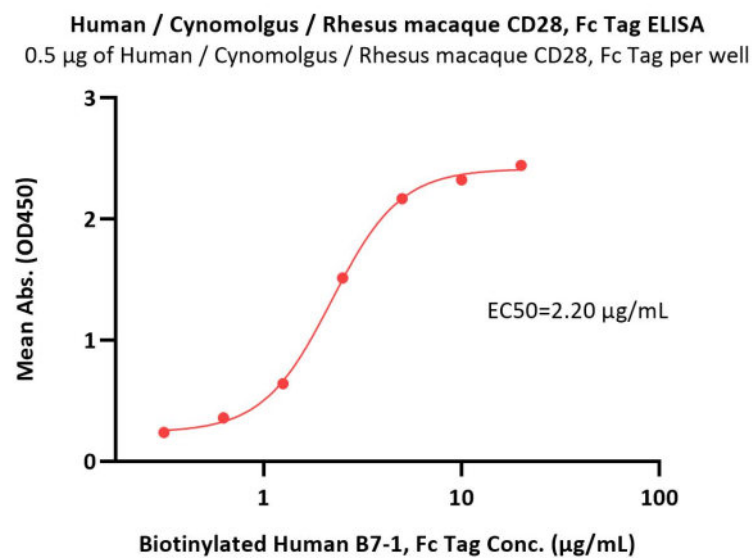
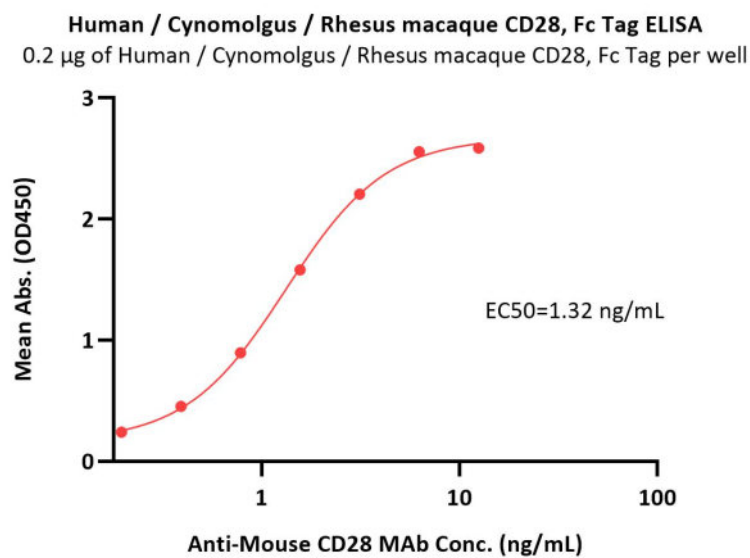


The purity of Human / Cynomolgus / Rhesus macaque CD28, Fc Tag (Cat. No. CD8-H525a) is more than 90% and the molecular weight of this protein is around 105-125 kDa verified by SEC-MALS.

[Report](#)

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and more!

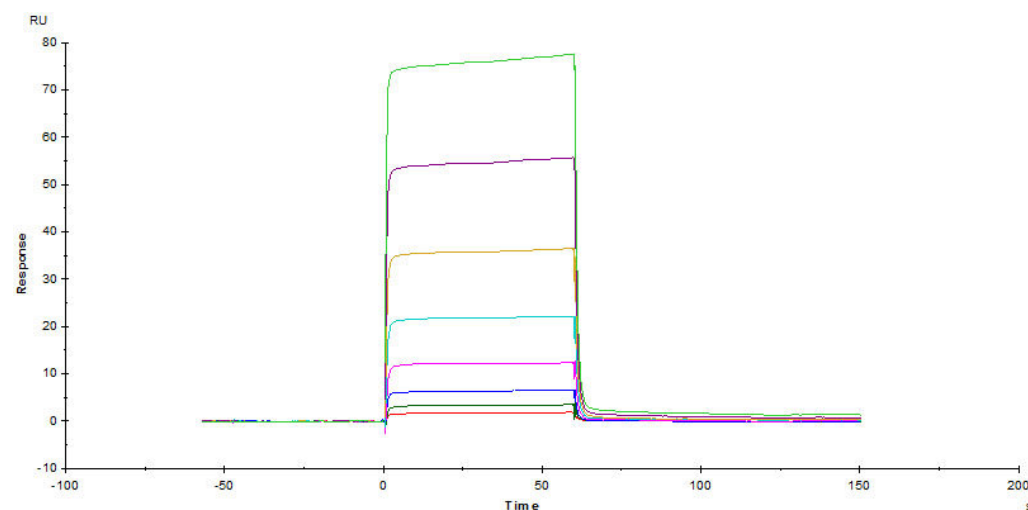




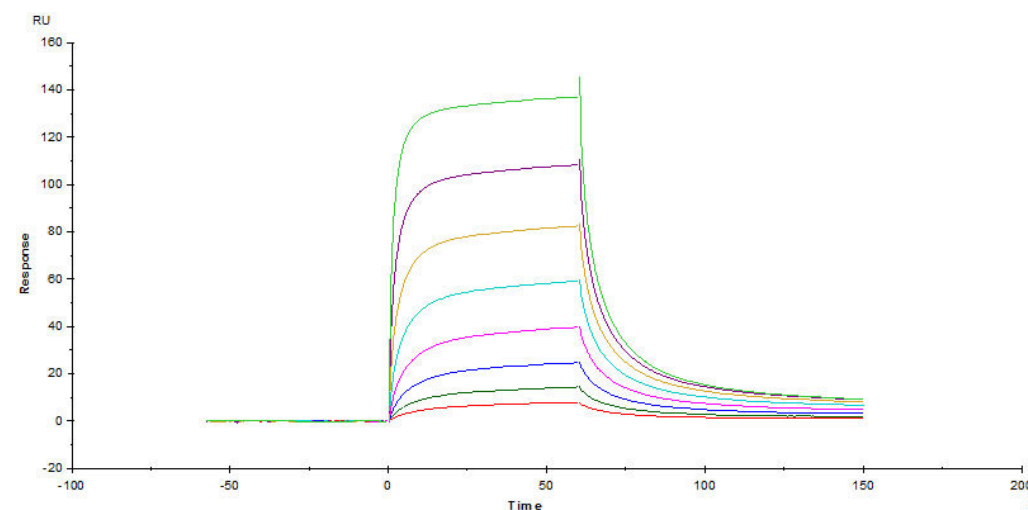
Immobilized Human / Cynomolgus / Rhesus macaque CD28, Fc Tag (Cat. No. CD8-H525a) at 2 µg/mL (100 µL/well) can bind Anti-Mouse CD28 MAb with a linear range of 0.1-2 ng/mL (QC tested).

Immobilized Human / Cynomolgus / Rhesus macaque CD28, Fc Tag (Cat. No. CD8-H525a) at 5 µg/mL (100 µL/well) can bind Biotinylated Human B7-1, Fc Tag (Cat. No. B71-H82F2) with a linear range of 0.313-5 µg/mL (Routinely tested).

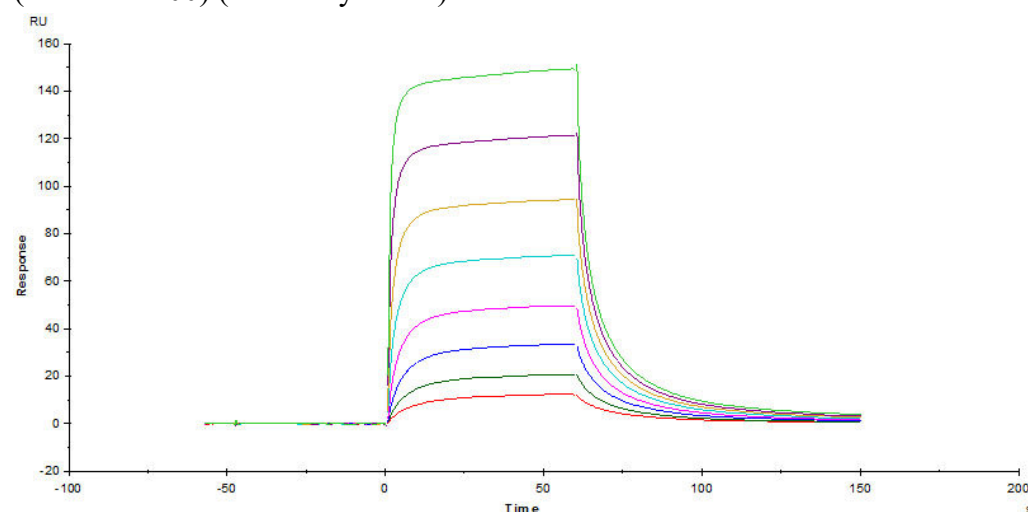
Bioactivity-SPR



Immobilized Human / Cynomolgus / Rhesus macaque CD28, Fc Tag (Cat. No. CD8-H525a) on CM5 Chip can bind Human B7-1, His Tag (Cat. No. B71-H5228) with an affinity constant of 5.29 µM as determined in a SPR assay (Biacore T200) (Routinely tested).



Immobilized Human / Cynomolgus / Rhesus macaque CD28, Fc Tag (Cat. No. CD8-H525a) on CM5 Chip can bind Human B7-1, Mouse IgG2a Fc Tag, low endotoxin (Cat. No. B71-H52A4) with an affinity constant of 2.72 µM as determined in a SPR assay (Biacore T200) (Routinely tested).

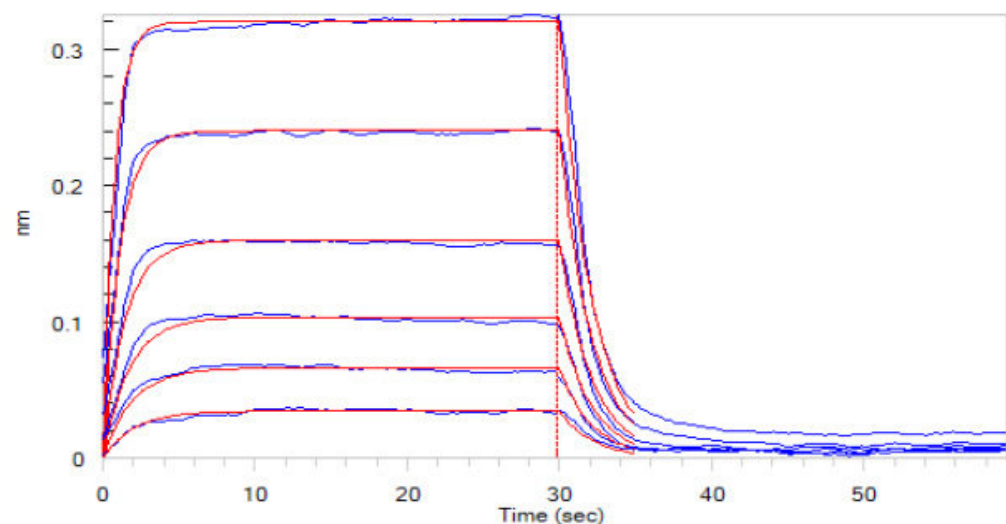


Immobilized Human / Cynomolgus / Rhesus macaque CD28, Fc Tag (Cat. No. CD8-H525a) on CM5 Chip can bind Human B7-1, Fc Tag (Cat. No. B71-H5259) with an affinity constant of 2.01 µM as determined in a SPR assay (Biacore T200) (Routinely tested).

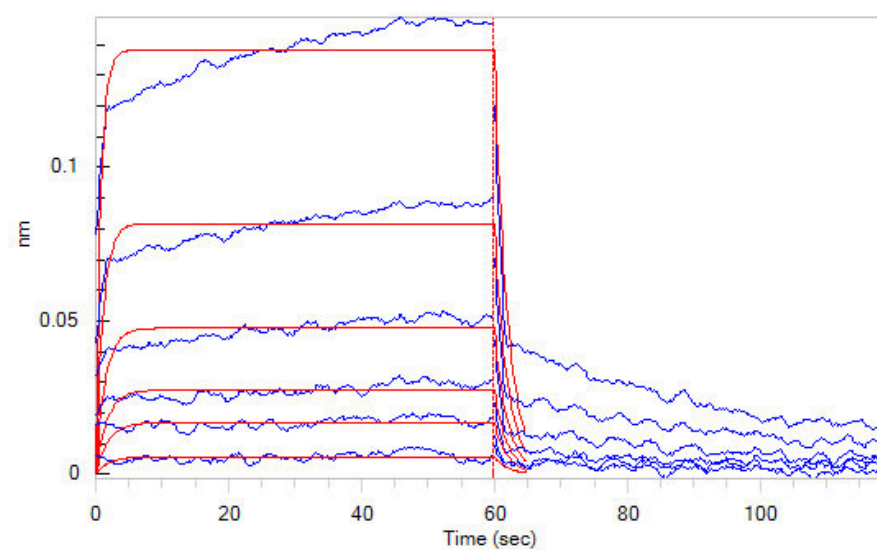
Bioactivity-BLI

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Loaded Human / Cynomolgus / Rhesus macaque CD28, Fc Tag (Cat. No. CD8-H525a) on ProteinA Biosensor, can bind Human B7-1, His Tag (Cat. No. B71-H5228) with an affinity constant of 2.2 μ M as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Loaded Human / Cynomolgus / Rhesus macaque CD28, Fc Tag (Cat. No. CD8-H525a) on Protein A Biosensor, can bind Human B7-2, His Tag (Cat. No. CD6-H5223) with an affinity constant of 6.8 μ M 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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