

Recombinant Human/Cynomolgus/Rhesus macaque CD28 protein, Fc-tagged (HPLC-verified)

Cat. No. CD28-562H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human/Cynomolgus/Rhesus macaque CD28 (Asn19-Pro152) protein (HPLC-verified) protein was fused to human IgG1 Fc tag at C-terminus and expressed in human 293 cells (HEK293).
Species	Human/Cynomolgus/Rhesus macaque
Source	HEK293
ProteinLength	Asn19-Pro152
Description	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.
Predicted N Terminal	Asn19
Form	Lyophilized from 0.22 µm filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5, 10% trehalose.

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Molecular Mass	The protein has a calculated MW of 41.6 kDa. The protein migrates as 55-66 kDa under reducing (R) 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.
Storage	For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

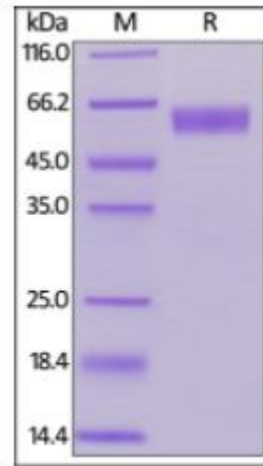
GENE INFORMATION

Gene Name	CD28
Official Symbol	CD28
Synonyms	Tp44
Gene ID	940
mRNA Refseq	NM_006139.4
Protein Refseq	NP_006130.1

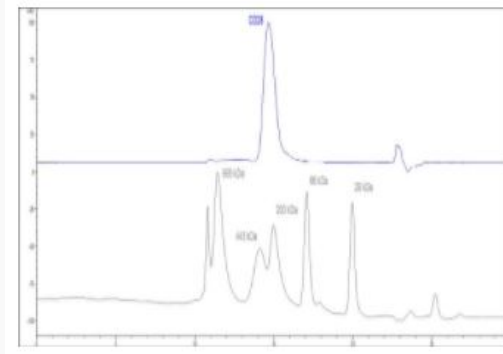
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UniProt ID
P10747
SDS-PAGE of CD28-562H


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

SEC-HPLC of CD28-562H


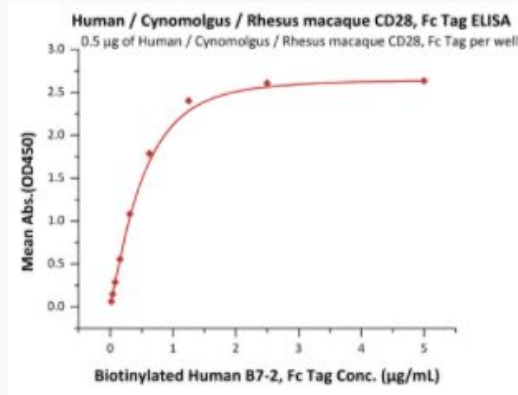
The purity of Human / Cynomolgus / Rhesus macaque CD28, Fc Tag (HPLC-verified) was greater than 90% as determined by SEC-HPLC.

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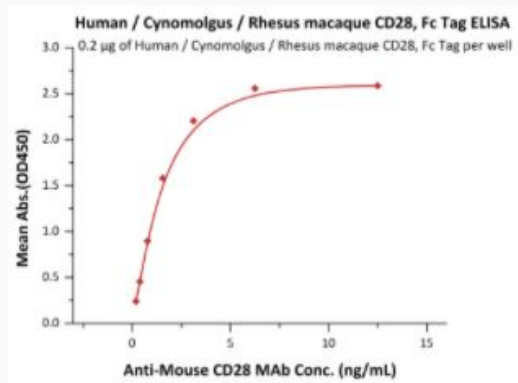
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Bioactivity-ELISA



Immobilized Human / Cynomolgus / Rhesus macaque CD28, Fc Tag (HPLC-verified) at 5 µg/mL (100 µL/well) can bind Biotinylated Human B7-2, Fc Tag with a linear range of 0.019-0.625 µg/mL (QC tested).

Bioactivity-ELISA of CD28-562H



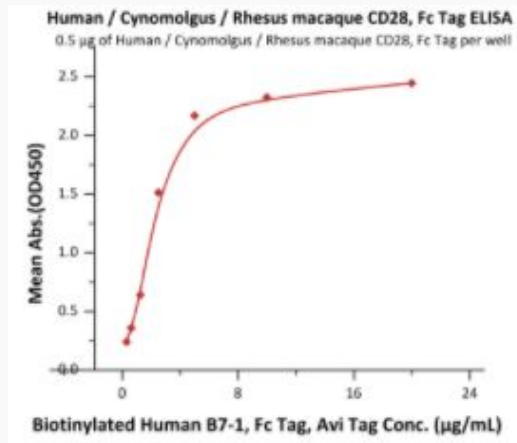
Immobilized Human / Cynomolgus / Rhesus macaque CD28, Fc Tag (HPLC-verified) at 2 µg/mL (100 µL/well) can bind Anti-Mouse CD28 MAb with a linear range of 0.1-2 ng/ml (QC tested).

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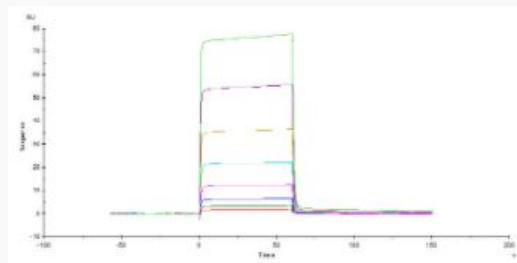
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**Bioactivity-ELISA of
CD28-562H**



Immobilized Human / Cynomolgus / Rhesus macaque CD28, Fc Tag (HPLC-verified) at 5 µg/mL (100 µL/well) can bind Biotinylated Human B7-1, Fc Tag with a linear range of 0.313-5 µg/mL (Routinely tested).

**Bioactivity-SPR of
CD28-562H**

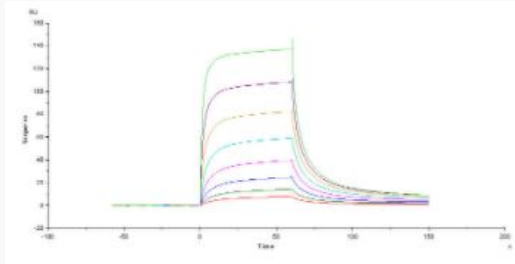


Immobilized Human / Cynomolgus / Rhesus macaque CD28, Fc Tag (HPLC-verified) on CM5 Chip can bind Human B7-1, His Tag with an affinity constant of 5.29 µM as determined in a SPR assay (Biacore T200) (Routinely tested).

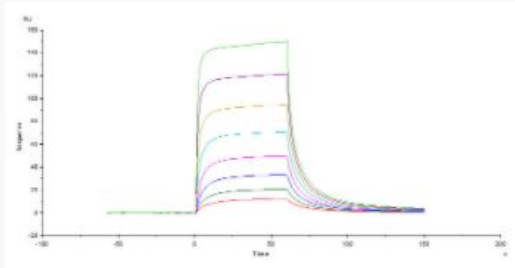
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**Bioactivity-SPR of
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Immobilized Human / Cynomolgus / Rhesus macaque CD28, Fc Tag (HPLC-verified) (Cat. No. CD8-H525a) on CM5 Chip can bind Human B7-1, Mouse IgG2a Fc Tag, low endotoxin (Cat. No.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

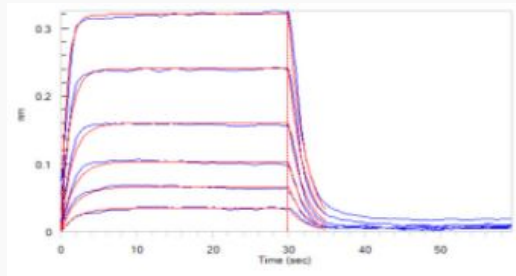
**Bioactivity-SPR of
CD28-562H**

Immobilized Human / Cynomolgus / Rhesus macaque CD28, Fc Tag (HPLC-verified) on CM5 Chip can bind Human B7-1, Fc Tag (HPLC-verified) with an affinity constant of 2.01 μM as determined in a SPR assay (Biacore T200) (Routinely tested).

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**Bioactivity-BLI of
CD28-562H**

Loaded Human / Cynomolgus / Rhesus macaque CD28, Fc Tag (HPLC-verified) on ProteinA Biosensor, can bind Human B7-1, His Tag with an affinity constant of 2.2 μM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

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