Biotinylated Human / Cynomolgus / Rhesus macaque CD28 Protein, His,Avitag™, active dimer (MALS verified)

Catalog # CD8-H82E5

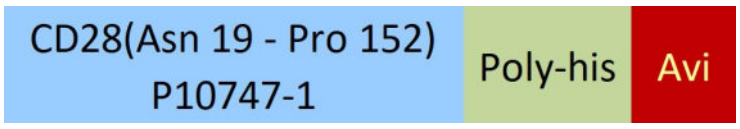
Synonym

CD28,Tp44

Source

Biotinylated Human / Cynomolgus / Rhesus macaque CD28, His,Avitag (CD8-H82E5) is expressed from human 293 cells (HEK293). It contains AA Asn 19 - Pro 152 (Accession # P10747-1).
Predicted N-terminus: Asn 19

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 18.7 kDa. As a result of glycosylation, the protein migrates as 33-45 kDa under reducing (R) condition, and 55-80 kDa under non-reducing (NR) condition (SDS-PAGE).

Biotinylation

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Biotin:Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

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. Normally trehalose is added as protectant before lyophilization.

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.

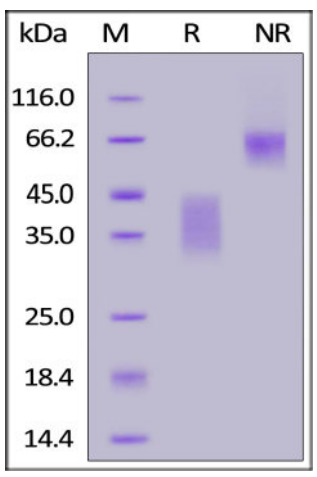
Storage

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

Please avoid repeated freeze-thaw cycles.

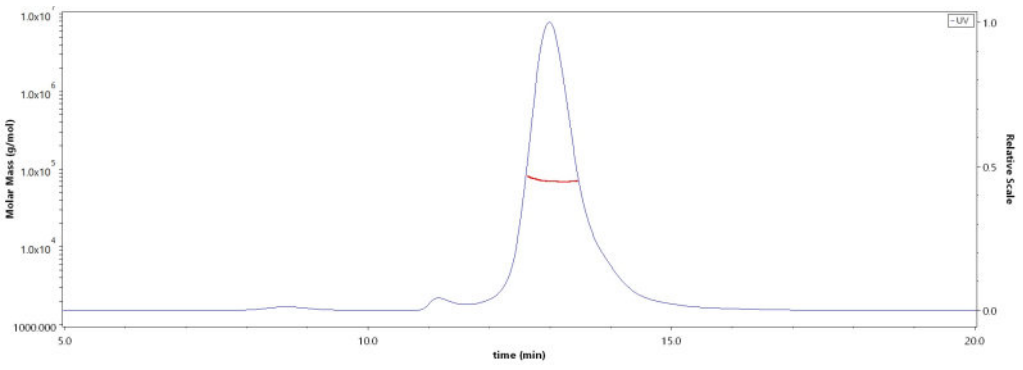
This product is stable after storage at:
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human / Cynomolgus / Rhesus macaque CD28, His,Avitag on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

SEC-MALS

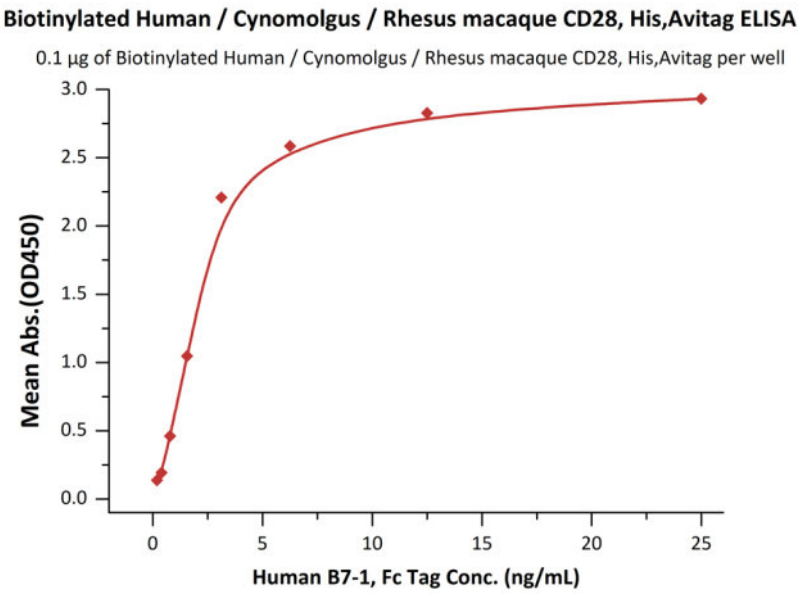


The purity of Biotinylated Human / Cynomolgus / Rhesus macaque CD28, His,Avitag (Cat. No. CD8-H82E5) is more than 90% and the molecular weight of this protein is around 63-77 kDa verified by SEC-MALS.
Report

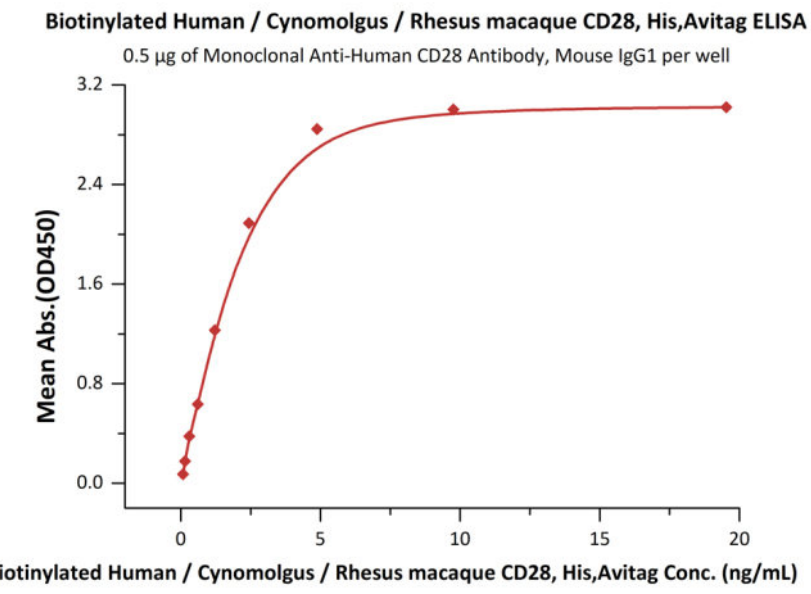
Bioactivity-ELISA

Biotinylated Human / Cynomolgus / Rhesus macaque CD28 Protein, His,Avitag™, active dimer (MALS verified)

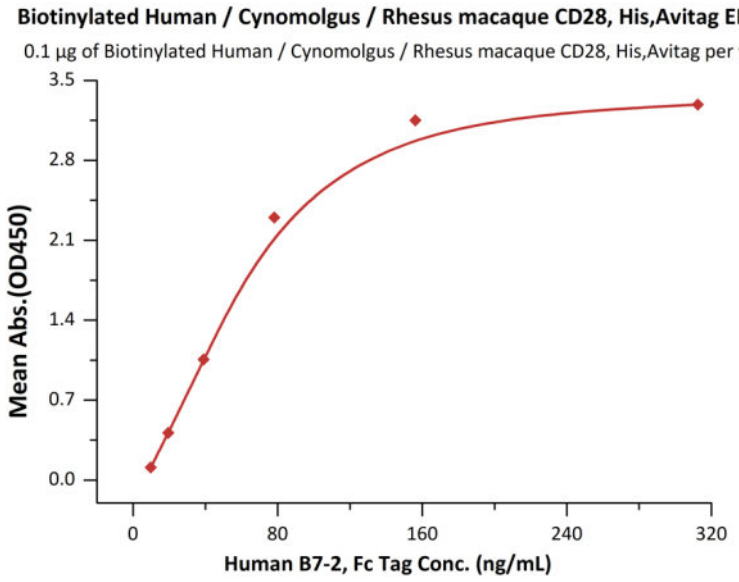
Catalog # CD8-H82E5



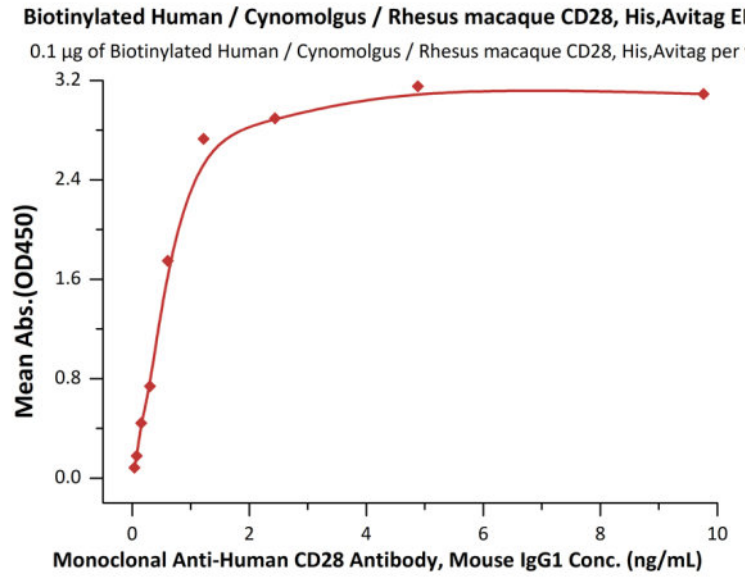
Immobilized Biotinylated Human / Cynomolgus / Rhesus macaque CD28, His,Avitag (Cat. No. CD8-H82E5) at 1 μg/mL (100 μL/well) on Streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate can bind Human B7-1, Fc Tag (Cat. No. B71-H5259) with a linear range of 0.2-3 ng/mL (QC tested).



Immobilized Monoclonal Anti-Human CD28 Antibody, Mouse IgG1 at 5 μg/mL (100 μL/well) can bind Biotinylated Human / Cynomolgus / Rhesus macaque CD28, His,Avitag (Cat. No. CD8-H82E5) with a linear range of 0.08-2 ng/mL (Routinely tested).



Immobilized Biotinylated Human / Cynomolgus / Rhesus macaque CD28, His,Avitag (Cat. No. CD8-H82E5) at 1 μg/mL (100 μL/well) on Streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate can bind Human B7-2, Fc Tag (Cat. No. CD6-H5257) with a linear range of 9-78 ng/mL (Routinely tested).



Immobilized Biotinylated Human / Cynomolgus / Rhesus macaque CD28, His,Avitag (Cat. No. CD8-H82E5) at 1 μg/mL (100 μL/well) on Streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate can bind Monoclonal Anti-Human CD28 Antibody, Mouse IgG1 with a linear range of 0.04-1 ng/mL (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.