Biotinylated Mouse CD28 Protein, His,Avitag™, active dimer (MALS verified)

Catalog # CD8-M82E3

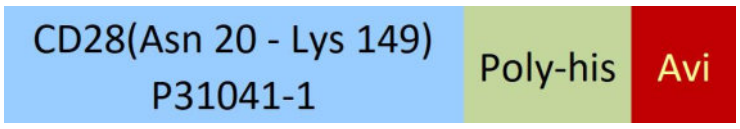
Synonym

CD28,Tp44

Source

Biotinylated Mouse CD28, His,Avitag(CD8-M82E3) is expressed from human 293 cells (HEK293). It contains AA Asn 20 - Lys 149 (Accession # P31041-1). Predicted N-terminus: Asn 20

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 18.6 kDa. The protein migrates as 34-42 kDa under reducing (R) condition, and 60-70 kDa under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

Labeling

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

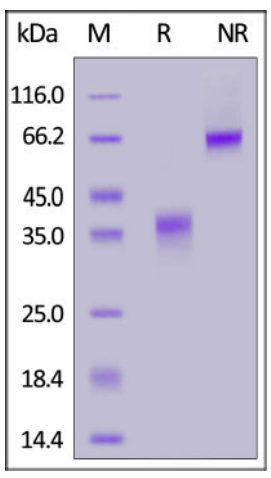
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

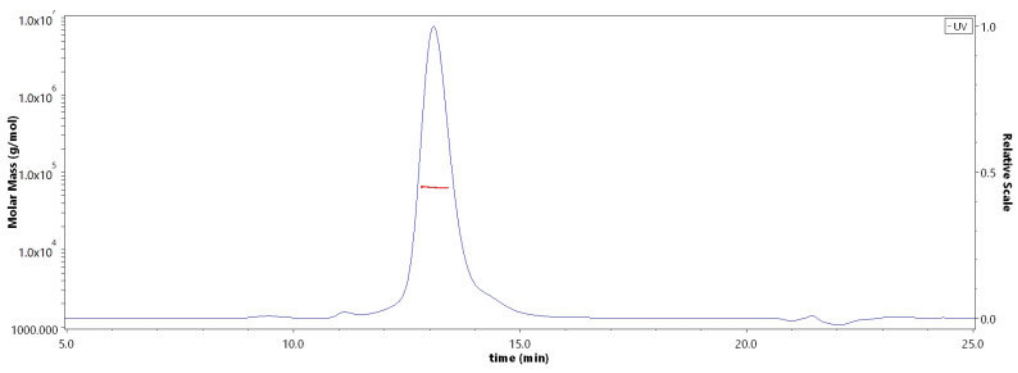
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



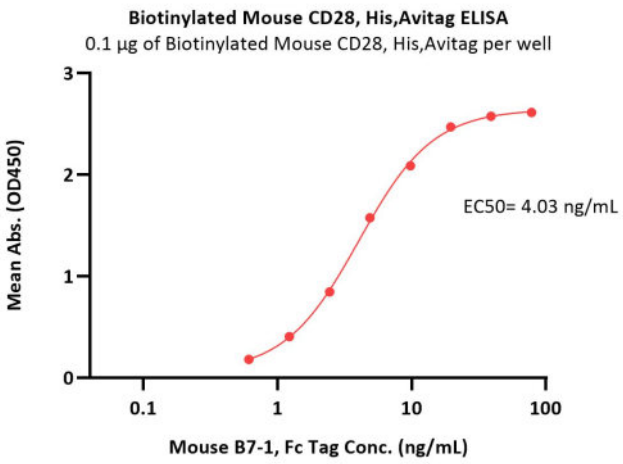
Biotinylated Mouse CD28, His,Avitag on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

SEC-MALS

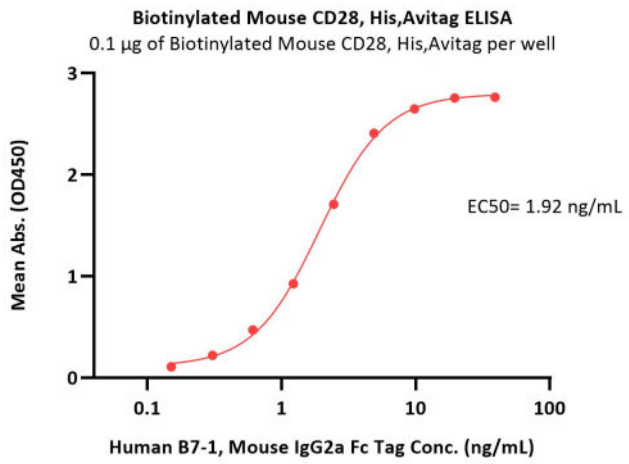


The purity of Biotinylated Mouse CD28, His,Avitag (Cat. No. CD8-M82E3) is more than 90% and the molecular weight of this protein is around 57-69 kDa verified by SEC-MALS.
Report

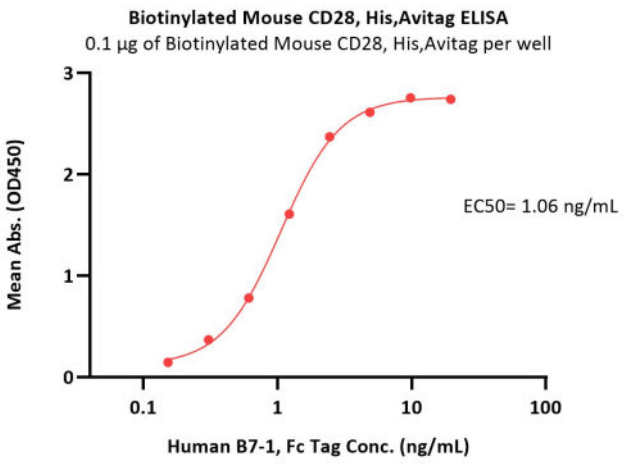
Bioactivity-ELISA



Immobilized Biotinylated Mouse CD28, His,Avitag (Cat. No. CD8-M82E3) at 1 μg/mL (100 μL/well) on Streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate, can bind Mouse B7-1, Fc Tag (Cat. No. CD0-M5259) with a linear range of 0.6-10 ng/mL (QC tested).



Immobilized Biotinylated Mouse CD28, His,Avitag (Cat. No. CD8-M82E3) at 1 μg/mL (100 μL/well) on Streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate, can bind Human B7-1, Mouse IgG2a Fc Tag (Cat. No. B71-H52A4) with a linear range of 0.2-5 ng/mL (Routinely tested).



Immobilized Biotinylated Mouse CD28, His,Avitag (Cat. No. CD8-M82E3) 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 0.2-2 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