Biotinylated Human CD38 Protein, Fc,Avitag™ (MALS verified)

Catalog # CD8-H82F5

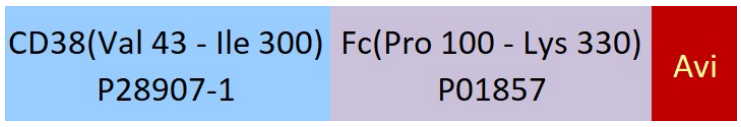
Synonym

CD38,T10,cADPr hydrolase 1

Source

Biotinylated Human CD38, Fc,Avitag(CD8-H82F5) is expressed from human 293 cells (HEK293). It contains AA Val 43 - Ile 300 (Accession # P28907-1). Predicted N-terminus: Val 43

Molecular Characterization



This protein carries a human IgG1 Fc tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 58.0 kDa. The protein migrates as 65-75 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) 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 0.1 EU per μg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μm filtered solution in 50 mM Tris, 100 mM Glycine, 25 mM Arginine, 150 mM 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

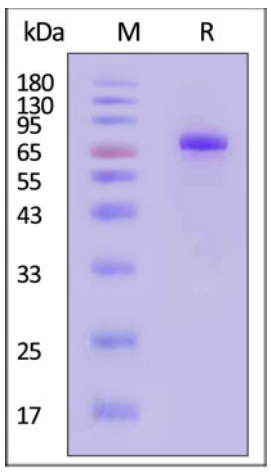
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

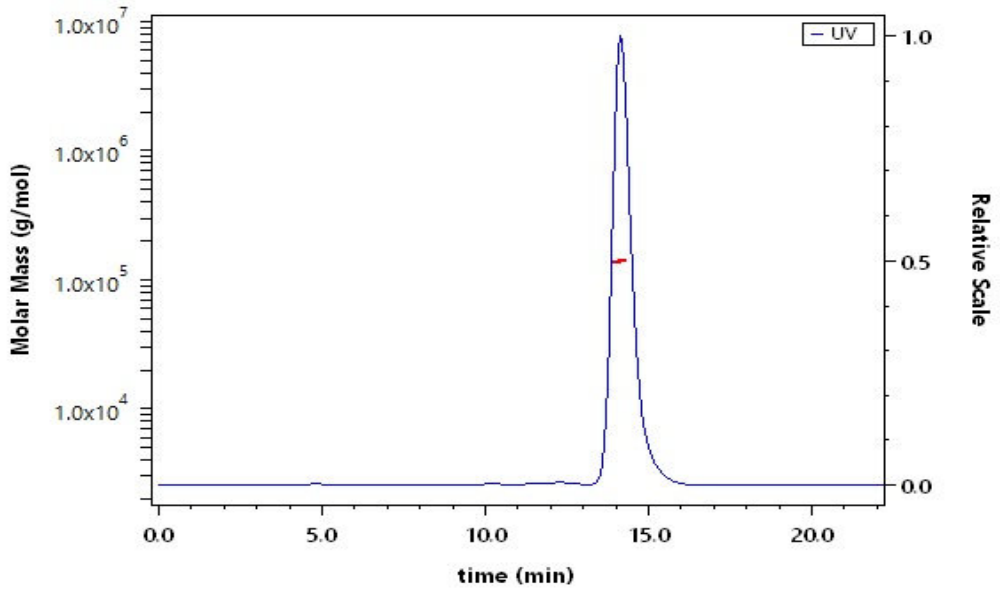
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



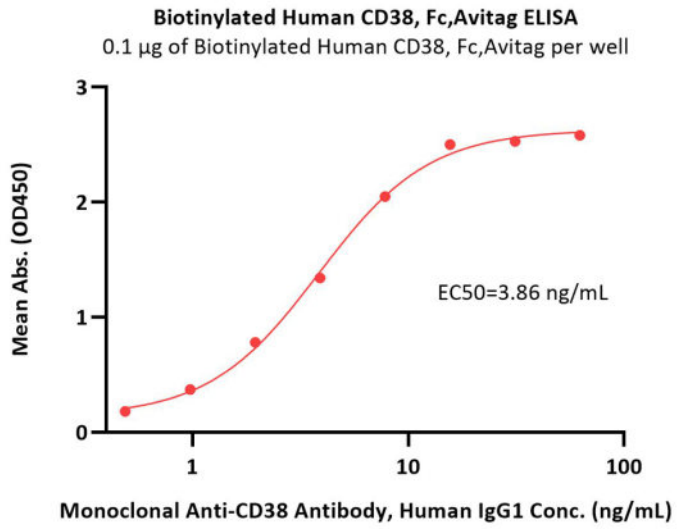
Biotinylated Human CD38, Fc,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



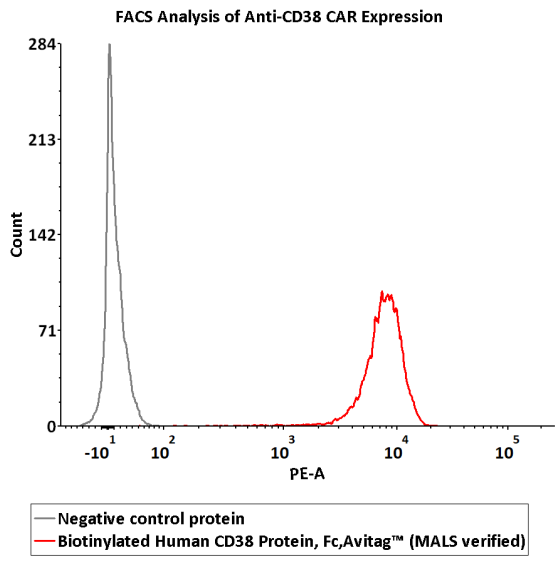
The purity of Biotinylated Human CD38, Fc,Avitag (Cat. No. CD8-H82F5) is more than 95% and the molecular weight of this protein is around 124-151 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



Immobilized Biotinylated Human CD38, Fc,Avitag (Cat. No. CD8-H82F5) at 1 μg/mL (100 μL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate can bind Monoclonal Anti-CD38 Antibody, Human IgG1 with a linear range of 0.5-8 ng/mL (QC tested).

Bioactivity-FACS



2e5 of Anti-CD38 CAR-293 cells were stained with 100 μL of 3 μg/mL of Biotinylated Human CD38 Protein, Fc,Avitag (Cat. No. CD8-H82F5) and negative control protein respectively, washed and then followed by PE-SA and analyzed with FACS (Routinely tested).

Background

CD antigen CD38 is also known as ADP-ribosyl cyclase 1, which belongs to the ADP-ribosyl cyclase family. CD38 is expressed at high levels in pancreas, liver, kidney, brain, testis, ovary, placenta, malignant lymphoma and neuroblastoma. CD38 is a multifunctional ectoenzyme that catalyzes the synthesis and hydrolysis of cyclic ADP-ribose (cADPR) from D+ to ADP-ribose. These reaction products are essential for the regulation of intracellular Ca2+. The loss of CD38 function is associated with impaired immune responses, metabolic disturbances, and behavioral modifications. The CD38 protein is a marker of cell activation. It has been connected to HIV infection, leukemias, myelomas, solid tumors, type II diabetes mellitus and bone metabolism. CD38 has been used as a prognostic marker in leukemia.