

Synonym

CD22,SIGLEC2,BL-CAM,SIGLEC-2,Siglec2,SIGLEC2FLJ22814

Source

Biotinylated Human Siglec-2, Fc,Avitag(SI2-H82F8) is expressed from human 293 cells (HEK293). It contains AA Asp 20 - Arg 687 (Accession # [P20273-1](#)). Predicted N-terminus: Asp 20

Molecular Characterization

Siglec-2(Asp 20 - Arg 687) P20273-1	Fc(Pro 100 - Lys 330) P01857	Avi
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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 103.91 kDa. The protein migrates as 115-120 kDa 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 0.2 EU per µg by the LAL method / rFC 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

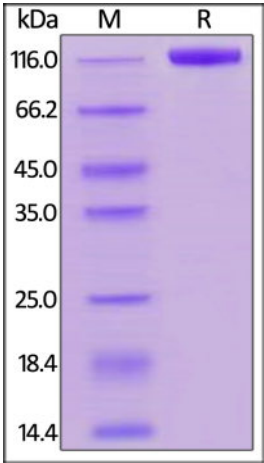
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

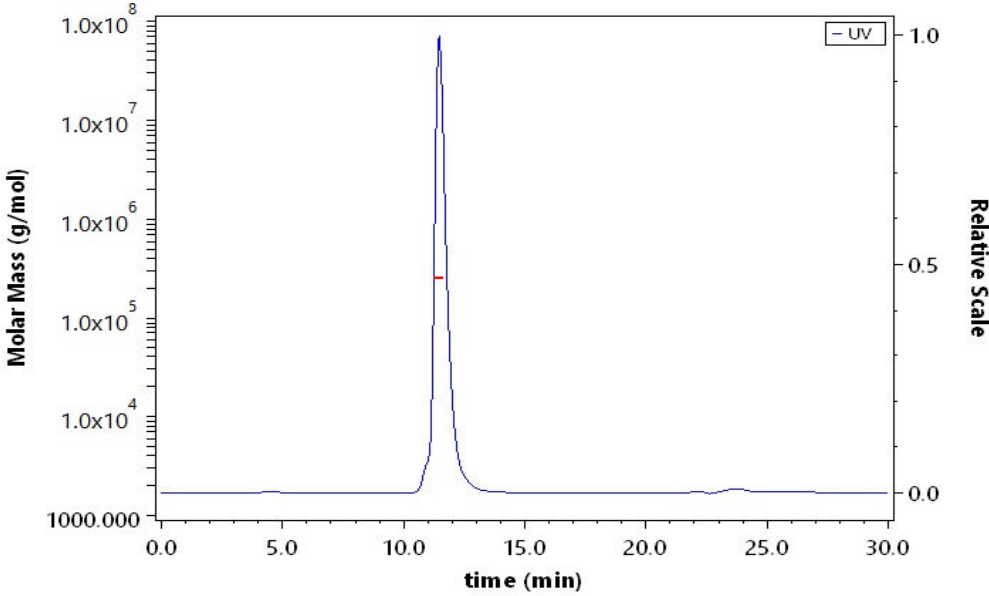
- 20°C to -70°C for 12 months in lyophilized state;
- 70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human Siglec-2, 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%.

SEC-MALS

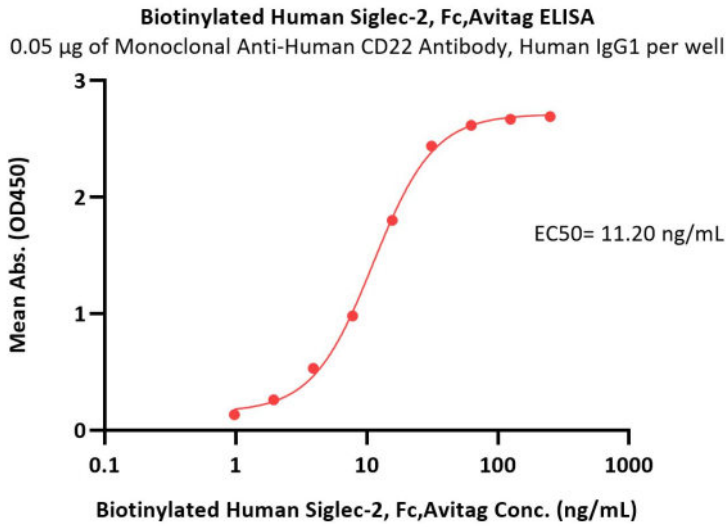


The purity of Biotinylated Human Siglec-2, Fc,Avitag (Cat. No. SI2-H82F8) is more than 90% and the molecular weight of this protein is around 250-280 kDa verified by SEC-MALS.

[Report](#)

Bioactivity-ELISA

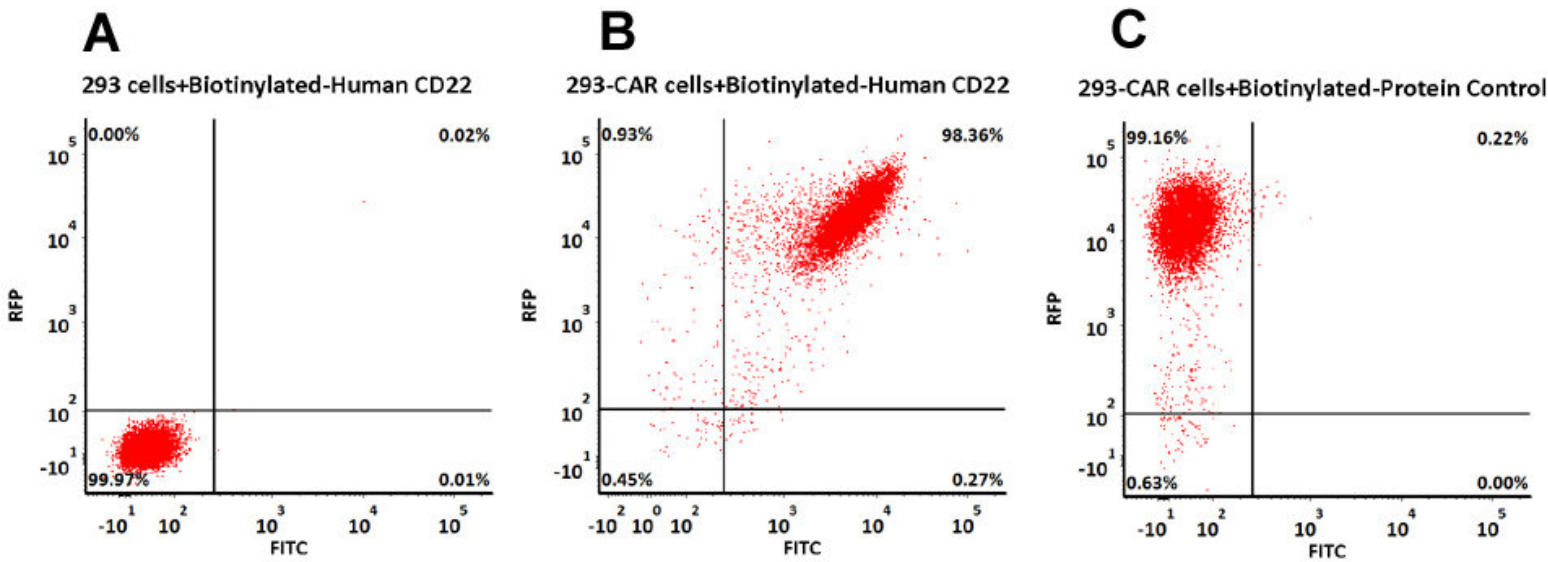




Immobilized Monoclonal Anti-Human CD22 Antibody, Human IgG1 at 0.5 µg/mL (100 µL/well) can bind Biotinylated Human Siglec-2, Fc,Avitag (Cat. No. SI2-H82F8) with a linear range of 1-16 ng/mL (QC tested).

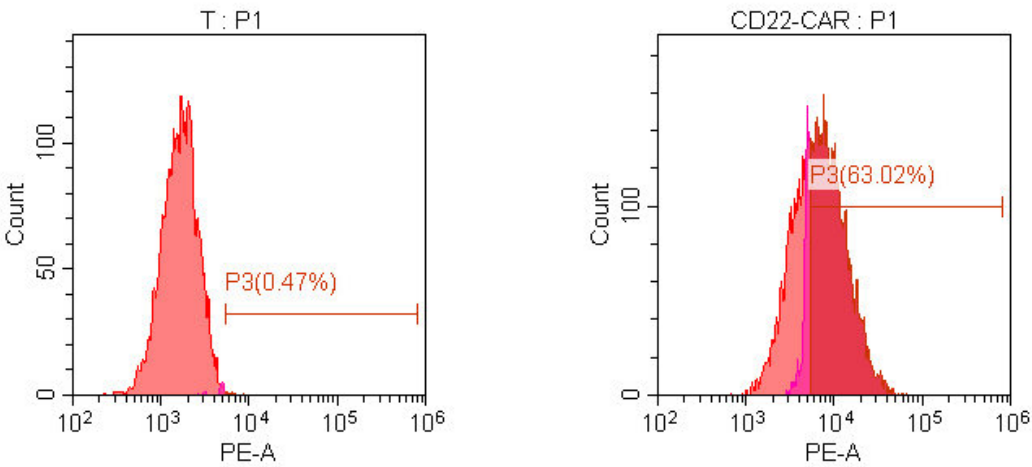
Evaluation of CAR expression

FACS Analysis of Anti-CD22 CAR Expression



293 cells were transfected with anti-CD22-scFv and RFP tag. 2e5 of the cells were first stained with B. Biotinylated Human Siglec-2, Fc,Avitag (Cat. No. SI2-H82F8, 10 µg/mL) and C. Biotinylated Protein Control, followed by FITC Streptavidin. A. Non-transfected 293 cells and C. Biotinylated Protein Control were used as negative control. RFP was used to evaluate CAR (anti-CD22-scFv) expression and FITC was used to evaluate the binding activity of Biotinylated Human Siglec-2, Fc,Avitag (Cat. No. SI2-H82F8).

FACS Analysis of Anti-CD22 CAR Expression



Human T cells were lentivirally transduced with anti-CD22 CAR and cultured for 3 days. Three days post-transduction, 1e6 cells were first incubated with 100 µL Biotinylated Human Siglec-2, Fc,Avitag (Cat. No. SI2-H82F8, 10 µg/mL), washed and then stained with PE Streptavidin. Non-transduced T cells were used as a





control for gating of CAR expression. (Data are kindly provided by Cellyan Therapeutics Co. Ltd.)

Background

B-cell receptor CD22 is also known as Sialic acid-binding Ig-like lectin 2 (Siglec-2), B-lymphocyte cell adhesion molecule (BL-CAM), T-cell surface antigen Leu-14, which belongs to the immunoglobulin superfamily and SIGLEC (sialic acid binding Ig-like lectin) family. CD22 mediates B-cell B-cell interactions, and may be involved in the localization of B-cells in lymphoid tissues. Siglec-2 / CD22 binds sialylated glycoproteins, one of which is CD45. Siglec2 / CD22 plays a role in positive regulation through interaction with Src family tyrosine kinases and may also act as an inhibitory receptor by recruiting cytoplasmic phosphatases via their SH2 domains that block signal transduction through dephosphorylation of signaling molecules.

