FITC-Labeled Human Siglec-2 / CD22 Protein, His Tag

Catalog # SI2-HF2H6

Synonym

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

Source

FITC-Labeled Human Siglec-2, His Tag (Cat. No. SI2-HF2H6) is expressed from human HEK293 cells. It contains AA Asp 20 - Arg 687 (Accession # P20273-1). It is the FITC labeled form of Human Siglec-2, His Tag (Cat. No. CD2-H52H8).
Predicted N-terminus: Asp 20

Molecular Characterization

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 77.0 kDa. The protein migrates as 100-120 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Conjugate

FITC

Excitation source: 488 nm spectral line, argon-ion laser

Excitation Wavelength: 488 nm

Emission Wavelength: 535 nm

Labeling

The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with FITC using standard chemical labeling method. The residual FITC is removed by molecular sieve treatment during purification process.

Protein Ratio

The FITC to protein molar ratio is ***3-5***.

Purity

>95% as determined by SDS-PAGE.

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

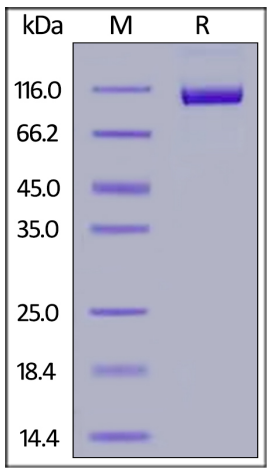
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please protect from light and avoid repeated freeze-thaw cycles.

This product is stable after storage at:

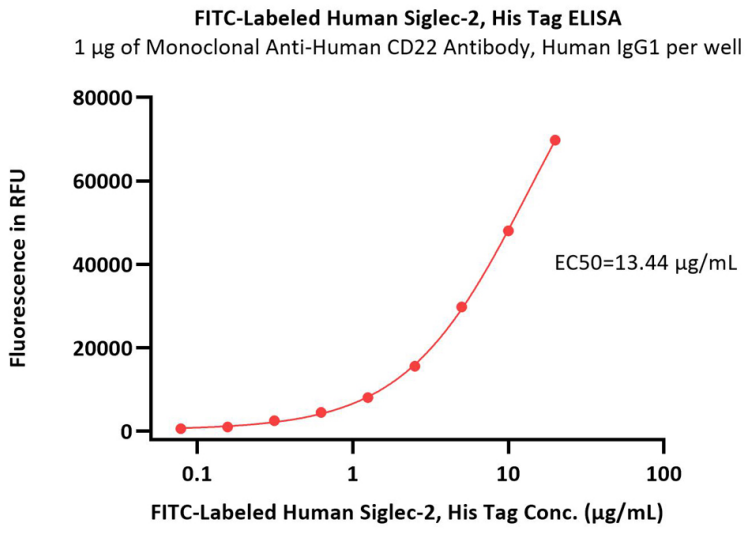
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



FITC-Labeled Human Siglec-2, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

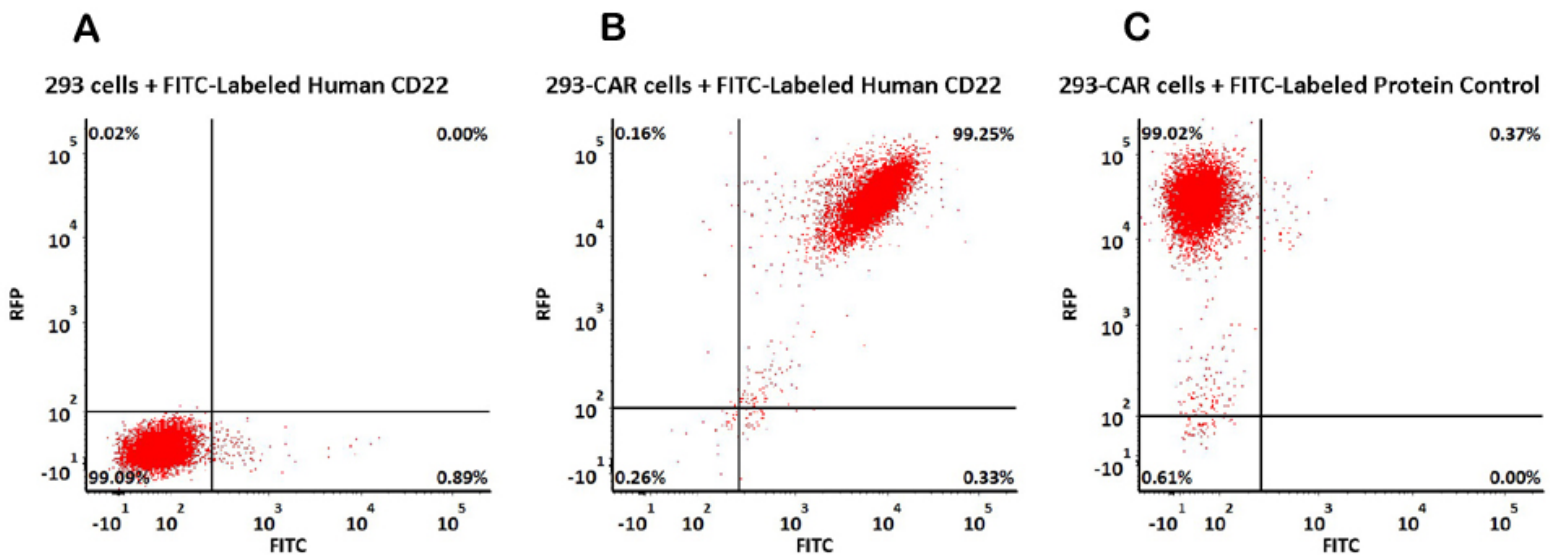
Bioactivity-ELISA



Immobilized Monoclonal Anti-Human CD22 Antibody, Human IgG1 at 10 μg/mL (100 μL/well) can bind FITC-Labeled Human Siglec-2, His Tag (Cat. No. SI2-HF2H6) with a linear range of 0.078-20 μg/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 stained with B. FITC-Labeled Human Siglec-2, His Tag (Cat. No. SI2-HF2H6, 10 μg/mL) and C. FITC-labeled Protein Control. A. Non-transfected 293 cells and C. FITC-labeled 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 FITC-Labeled Human Siglec-2, His Tag (Cat. No. SI2-HF2H6) (QC tested).

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.