Alexa Fluor™ 488-Labeled Human Siglec-2 / CD22 Protein, His TagStar Staining

Catalog # SI2-HA2H7

Synonym

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

Source

Alexa Fluor 488-Labeled Human Siglec-2, His Tag (SI2-HA2H7) is produced via conjugation of AF488 to Human Siglec-2, His Tag with a new generation site-specific technology under Star Staining labeling platform. Human Siglec-2, His Tag is expressed from human 293 cells (HEK293). It contains AA Asp 20 - Arg 687 (Accession # P20273-1).
Predicted N-terminus: Asp 20

Molecular Characterization

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

The protein has a calculated MW of 91.8 kDa.

Conjugate

AF488

Excitation Wavelength: 488 nm

Emission Wavelength: 517 nm

Endotoxin

Less than 1.0 EU per μg by the LAL method.

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.

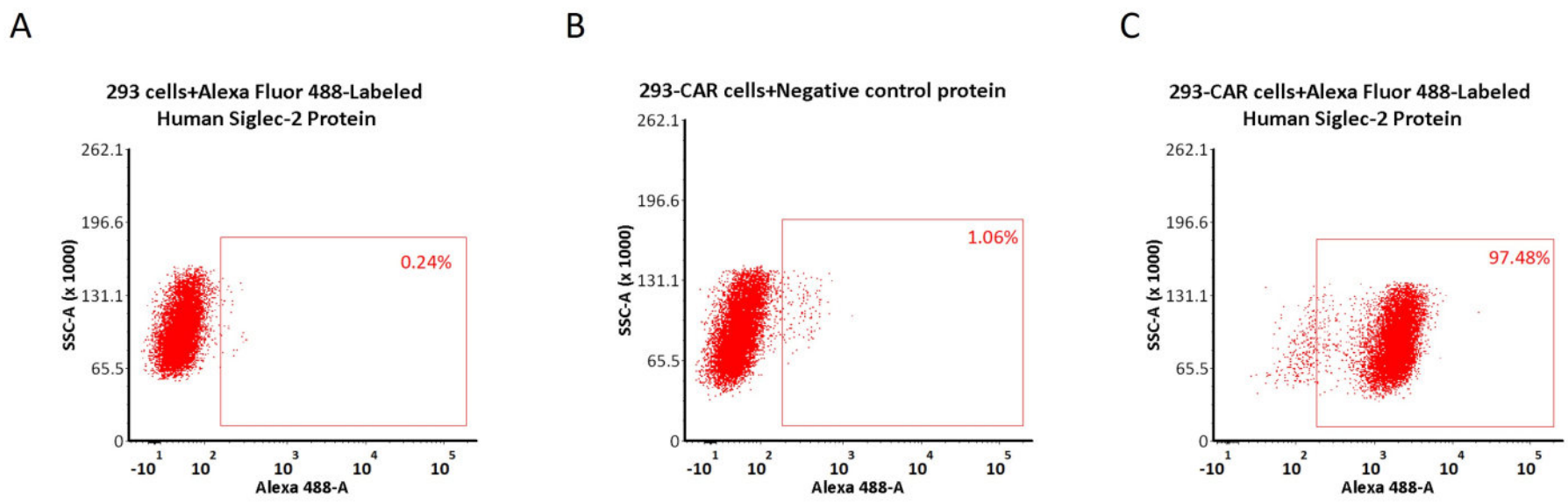
Please protect from light and avoid repeated freeze-thaw cycles.

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.

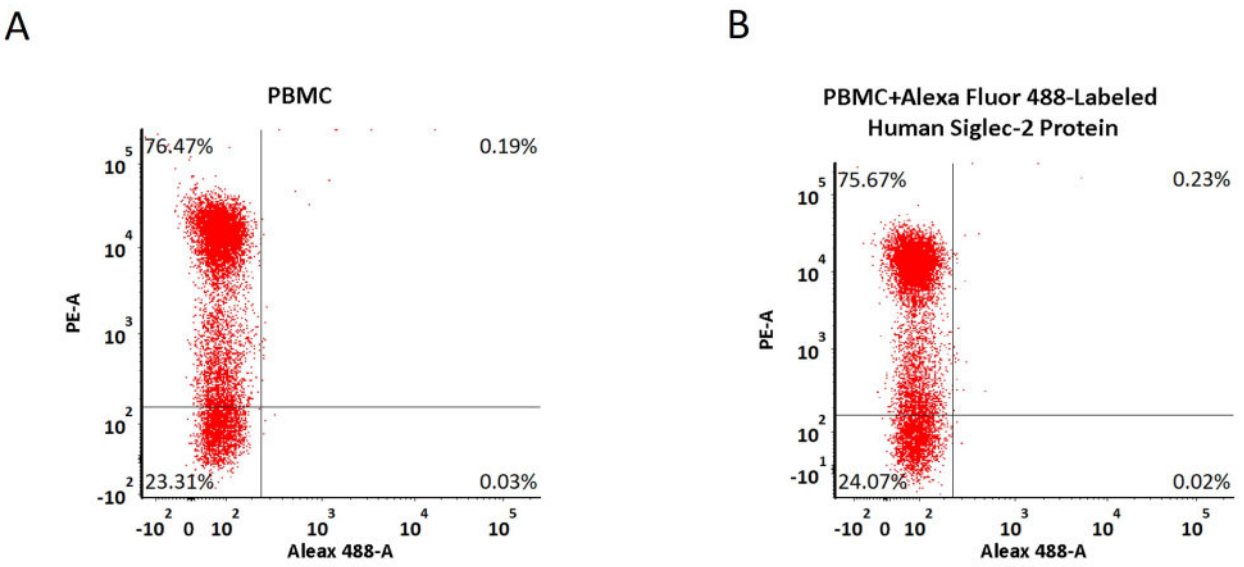
Evaluation of CAR expression

FACS Analysis of Anti-Siglec-2 CAR Expression



5e5 of anti-CD22 CAR-293 cells were stained with 100 μL of 10 μg/mL of Alexa Fluor 488-Labeled Human Siglec-2, His Tag (Cat. No. SI2-HA2H7) and negative control protein respectively (Fig. C and B), and non-transfected 293 cells were used as a control (Fig. A). Alexa 488 signal was used to evaluate the binding activity (QC tested).

FACS Analysis of Non-specific binding to PBMCs



5e5 of PBMCs were stained with Alexa Fluor 488-Labeled Human Siglec-2, His Tag (Cat. No. SI2-HA2H7) and anti-CD3 antibody, washed and then analyzed with FACS. PE signal was used to evaluate the expression of CD3+ T cells in PBMCs, and Alexa 488 signal was used to evaluate the non-specific binding activity to PBMCs (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.

Clinical and Translational Updates