

**Synonym**

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

**Source**

PE-Labeled Human Siglec-2, His Tag (SI2-HP2H5) is produced via conjugation of PE 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**

Siglec-2(Asp 20 - Arg 687) P20273-1	Poly-his
--	----------

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

The protein has a calculated MW of 89.5 kDa.

**Conjugate**

PE

Excitation Wavelength: 488 nm / 561 nm

Emission Wavelength: 575 nm

**Formulation**Lyophilized from 0.22  $\mu$ m filtered solution in PBS, 0.2% BSA, pH7.4. Normally trehalose is added as protectant before lyophilization.

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  $-20^{\circ}\text{C}$  or lower.*Please protect from light and avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$  for 12 months in lyophilized state;
- $-70^{\circ}\text{C}$  for 3 months under sterile conditions after reconstitution.

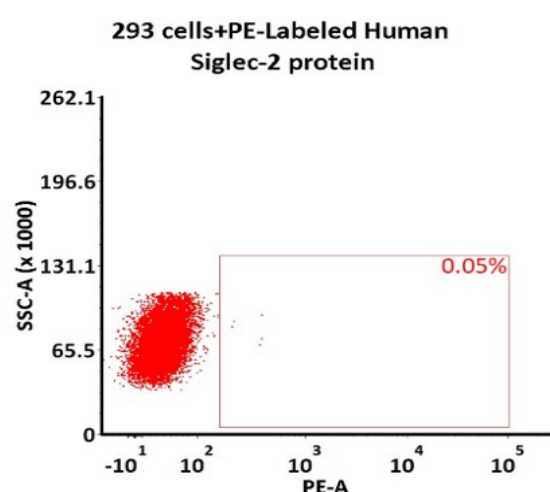
**Star Staining** fluorescent-labeled products are developed by a new-generation site-specific labeling technology with Star Standard quality at ACROBiosystems

- ★ Using new-generation site-specific labeling technology to maintain natural bioactivity.
- ★ High specificity and sensitivity verified by flow cytometry.

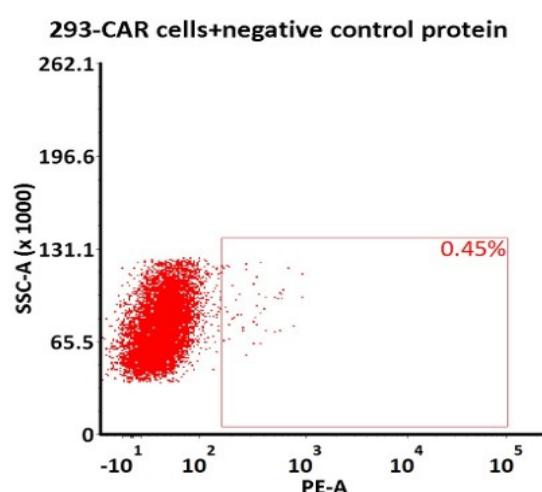
- ★ No non-specific binding to non-transduced PBMCs.
- ★ High homogeneity and high batch-to-batch consistency.

**Evaluation of CAR expression****FACS Analysis of Anti-Siglec-2 CAR Expression**

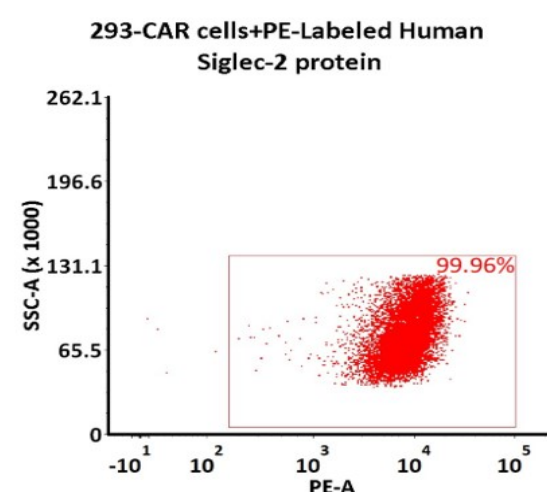
A



B

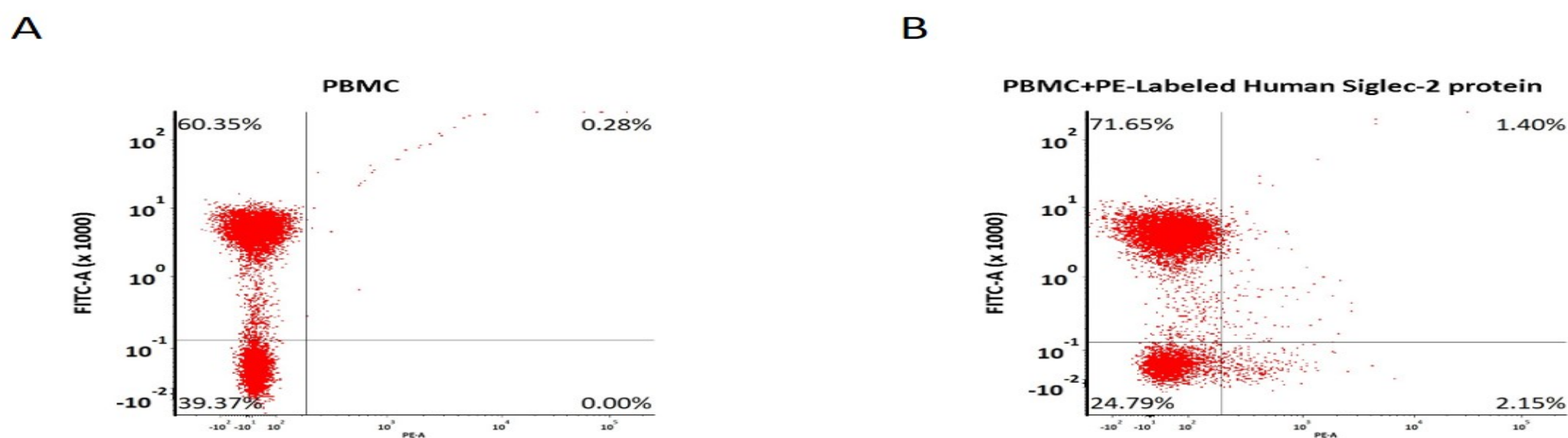


C



$5 \times 10^5$  of anti-CD22 CAR-293 cells were stained with 100  $\mu$ L of 1:50 dilution (2  $\mu$ L stock solution in 100  $\mu$ L FACS buffer) PE-Labeled Human Siglec-2, His Tag (Cat. No. SI2-HP2H5) and negative control protein respectively (Fig. C and B), and non-transfected 293 cells were used as a control (Fig. A). PE signal was used to evaluate the binding activity (QC tested).

**FACS Analysis of Non-specific binding to PBMCs**



5e5 of PBMCs were stained with PE-Labeled Human Siglec-2, His Tag (Cat. No. SI2-HP2H5) and anti-CD3 antibody, washed and then analyzed with FACS. FITC signal was used to evaluate the expression of CD3<sup>+</sup> T cells in PBMCs, and PE 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

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.