



## Synonym

CD33, SIGLEC3, gp67

## Source

PE-Labeled Human Siglec-3 Protein, His Tag (CD3-HP2H7) is produced via conjugation of PE to Human Siglec-3 Protein, His Tag with a new generation site-specific technology under Star Staining labeling platform. Human Siglec-3 Protein, His Tag is expressed from human 293 cells (HEK293). It contains AA Asp 18 - His 259 (Accession # [AAH28152.1](#)).

Predicted N-terminus: Asp 18

## Molecular Characterization

Siglec-3(Asp 18 - His 259)	Poly-his
AAH28152.1	

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

## Conjugate

PE

Excitation Wavelength: 488 nm / 561 nm

Emission Wavelength: 575 nm

## Purity

>90% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22 µm filtered solution in PBS, 0.2% BSA, 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:

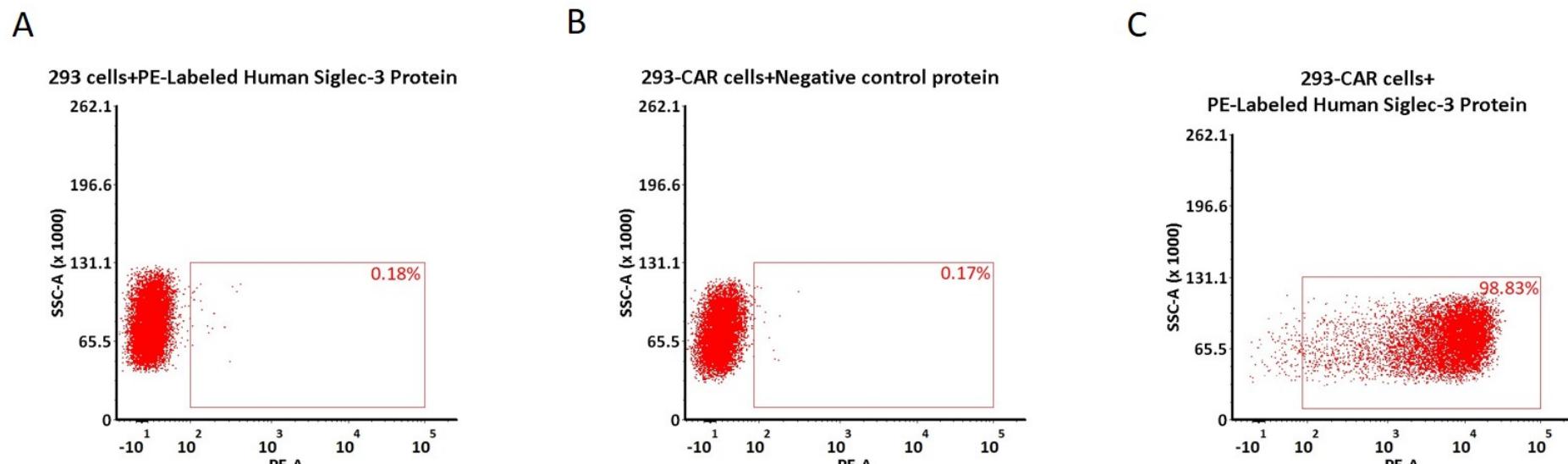
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**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.
- ★ No non-specific binding to non-transduced PBMCs.
- ★ High specificity and sensitivity verified by flow cytometry.
- ★ High homogeneity and high batch-to-batch consistency.

## Evaluation of CAR expression

FACS Analysis of Anti-Siglec-3 CAR Expression



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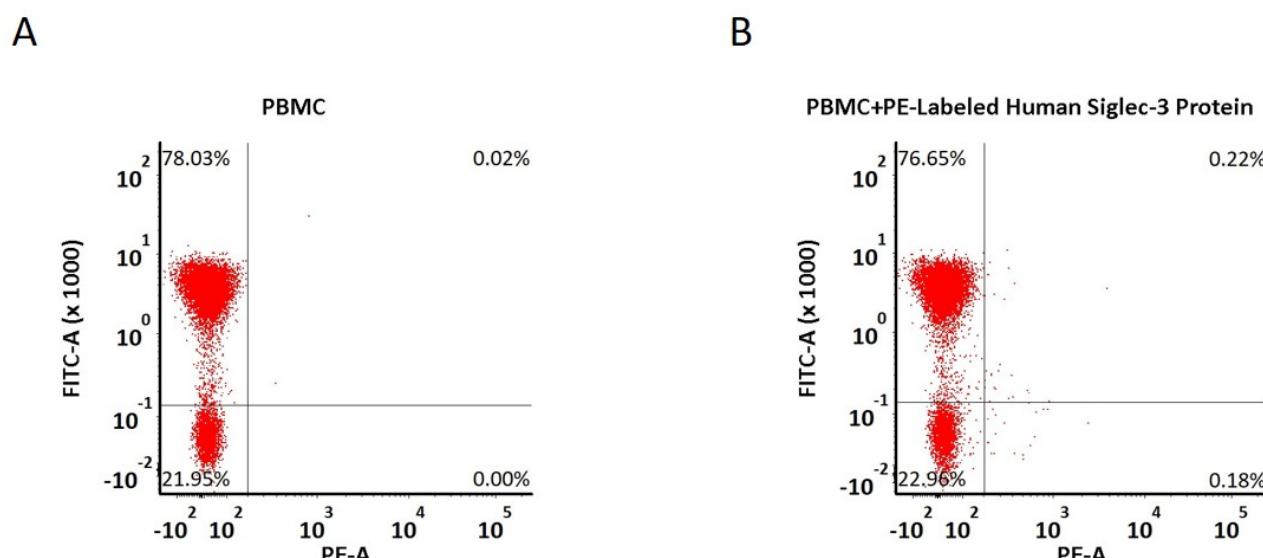


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5e5 of anti-Siglec-3 CAR-293 cells were stained with 100  $\mu$ L of 1:50 dilution (2  $\mu$ L stock solution in 100  $\mu$ L FACS buffer) of PE-Labeled Human Siglec-3 Protein, His Tag (Cat. No. CD3-HP2H7) and negative control protein respectively (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-3 Protein, His Tag (Cat. No. CD3-HP2H7) and anti-CD3 antibody, washed and then analyzed with FACS. FITC signal was used to evaluate the expression of CD3+ T cells in PBMCs, and PE signal was used to evaluate the non-specific binding activity to PBMCs (QC tested).

## Background

Myeloid cell surface antigen CD33 is also known as SIGLEC3, Siglecs (sialic acid binding Iglike lectins) and GP67, is a single-pass type I membrane protein which belongs to the immunoglobulin superfamily and SIGLEC (sialic acid binding Ig-like lectin) family. Human CD33 / Siglec-3 cDNA encodes a 364 amino acid (aa) polypeptide with a hydrophobic signal peptide, an N-terminal Ig-like V-type domain, one Ig-like C2-type domains, a transmembrane region and a cytoplasmic tail. CD33 / Siglec-3 usually considered myeloid-specific, but it can also be found on some lymphoid cells. In the immune response, CD33 / Siglec-3 may act as an inhibitory receptor upon ligand induced tyrosine phosphorylation by recruiting cytoplasmic phosphatase(s) via their SH2 domain(s) that block signal transduction through dephosphorylation of signaling molecules. CD33 / Siglec-3 induces apoptosis in acute myeloid leukemia.

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