# Alexa Fluor™ 647-Labeled Human Siglec-3 / CD33 Protein, His TagStar Staining

Catalog # CD3-HA2H6



## **Synonym**

CD33,SIGLEC3,gp67

#### Source

Alexa Fluor 647-Labeled Human Siglec-3, His Tag (CD3-HA2H6) is produced via conjugation of AF647 to Human Siglec-3, His Tag with a new generation site-specific technology under Star Staining labeling platform. Human Siglec-3, 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) AAH28152.1

Poly-his

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

The protein has a calculated MW of 43.9 kDa.

## Conjugate

AF647

Excitation Wavelength: 640 nm

Emission Wavelength: 672 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  $\mu m$  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.

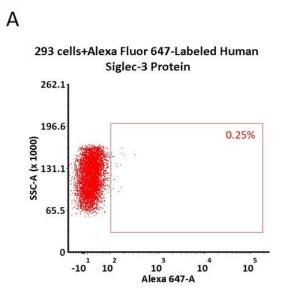
Please protect from light and avoid repeated freeze-thaw cycles.

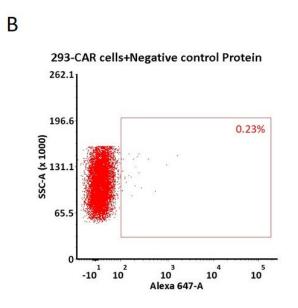
This product is stable after storage at:

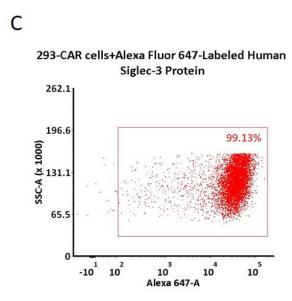
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## **Evaluation of CAR expression**

FACS Analysis of Anti-Siglec-3 CAR Expression







5e5 of 293 CAR cells transfected with anti-Siglec-3-scFv were stained with 100 μL of 3 μg/mL of Alexa Fluor 647-Labeled Human Siglec-3, His Tag (Cat. No. CD3-HA2H6) and negative control protein respectively (Fig. C and B), and non- transfected 293 cells were used as a control (Fig. A), Alexa 647 signal was used to evaluate the binding activity (QC tested).

FACS Analysis of Non-specific binding to PBMCs

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# Alexa Fluor™ 647-Labeled Human Siglec-3 / CD33 Protein, His TagStar Staining

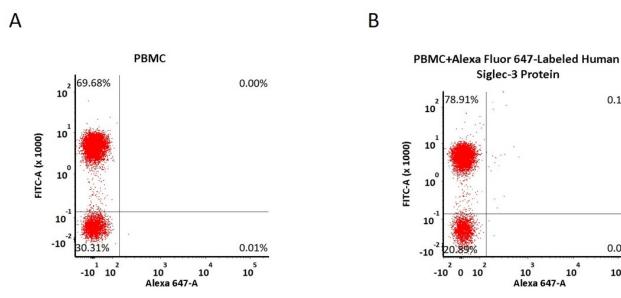
Catalog # CD3-HA2H6



0.18%

0.02%

10



5e5 of PBMCs were stained with Alexa Fluor 647-Labeled Human Siglec-3, His Tag (Cat. No. CD3-HA2H6) 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 Alexa 647 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 cD 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.

## **Clinical and Translational Updates**

Please contact us via <u>TechSupport@acrobiosystems.com</u> if you have any question on this product.

