



## Synonym

CD33,SIGLEC3,gp67

#### Source

Human Siglec-3, His Tag(CD3-H5226) is expressed from human 293 cells (HEK293). It contains AA Asp 18 - His 259 (Accession # <u>AAH28152.1</u>). 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 27.6 kDa. The protein migrates as 43-55 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

#### **Endotoxin**

Less than 0.1 EU per  $\mu g$  by the LAL method / rFC method.

# **Purity**

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

#### **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

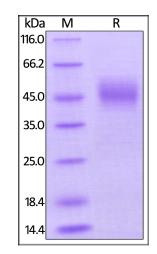
For long term storage, the product should be stored at lyophilized state at -20 $^{\circ}$ C or lower.

Please 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.

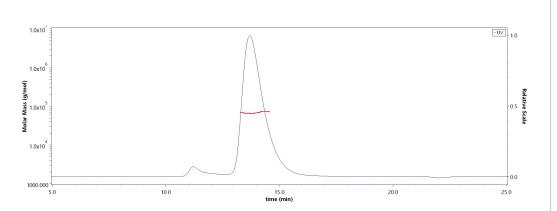
## **SDS-PAGE**



Human Siglec-3, 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**

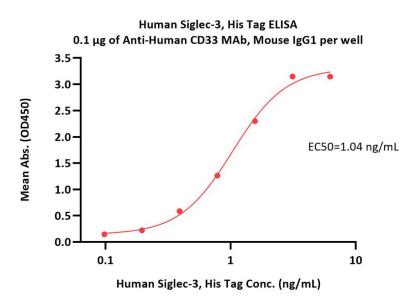
## **SEC-MALS**

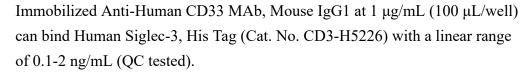


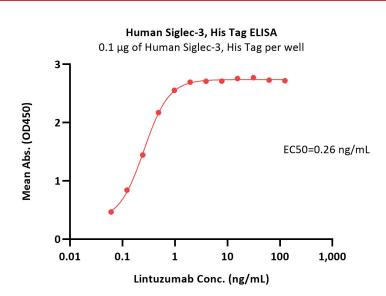
The purity of Human Siglec-3, His Tag (Cat. No. CD3-H5226) is more than 90% and the molecular weight of this protein is around 55-70 kDa verified by SEC-MALS.

Report



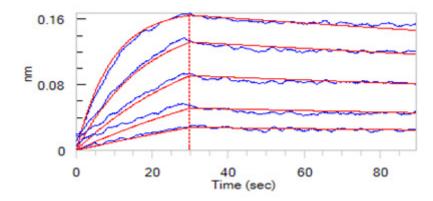






Immobilized Human Siglec-3, His Tag (Cat. No. CD3-H5226) at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Lintuzumab with a linear range of 0.06-1 ng/mL (Routinely tested).

# **Bioactivity-BLI**



Loaded Anti-Human CD33 MAb, Mouse IgG1 on AMC Biosensor, can bind Human Siglec-3, His Tag (Cat. No. CD3-H5226) with an affinity constant of 1.86 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely 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.