



#### Synonym

CD33,SIGLEC3,gp67

#### Source

Human Siglec-3 Protein, Llama IgG2b Fc Tag(CD3-H5259) 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 LlamaFc(Glu1 - Ser243) AAX73259.1

This protein carries a llama IgG2b Fc tag at the C-terminus.

The protein has a calculated MW of 54.6 kDa. The protein migrates as 64-90 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

## **Application**

Please note that there may be a cross-reaction between anti-human IgG Fc antibodies and llama IgG Fc tag, also between anti-llama IgG Fc antibodies and human IgG Fc tag.

### Endotoxin

Less than 0.01 EU per µg by the LAL method.

## **Purity**

>95% as determined by SDS-PAGE.

#### **Formulation**

Lyophilized from 0.22 µm filtered solution in

Tris with Glycine, Arginine and NaCl, pH7.5 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**

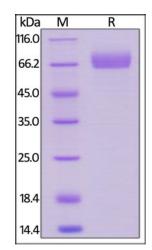
For long term storage, the product should be stored at lyophilized state at -20 $^{\circ}$ C or lower.

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**

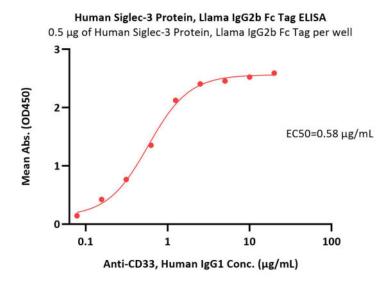


Human Siglec-3 Protein, Llama IgG2b Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

# **Bioactivity-ELISA**

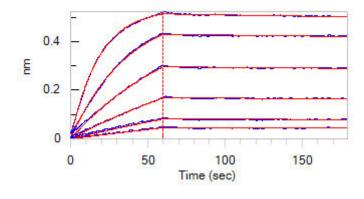






Immobilized Human Siglec-3 Protein, Llama IgG2b Fc Tag (Cat. No. CD3-H5259) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Anti-CD33, Human IgG1 with a linear range of 0.078-1.25  $\mu$ g/mL (QC tested).

# **Bioactivity-BLI**



Loaded Siglec-3 MAb (Mouse IgG1) on AMC Biosensor, can bind Human Siglec-3 Protein, Llama IgG2b Fc Tag (Cat. No. CD3-H5259) with an affinity constant of 0.365 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 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**

