

## Human Siglec-3 / CD33 Protein, Llama IgG2b Fc Tag, low endotoxin

Catalog # CD3-H5259

For Research Use Only

### Description

**Source** Human Siglec-3, Llama IgG2b Fc Tag, low endotoxin (CD3-H5259) is expressed from human 293 cells (HEK293). It contains AA Asp 18 - His 259 (Accession # AAH28152.1). Predicted N-terminus: Asp 18

**Predicted N-terminus** Asp 18

### Protein Structure

Siglec-3(Asp 18 - His 259) AAH28152.1	LlamaFc(Glu1 - Ser243) AAX73259.1
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**Molecular Characterization** 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.

**Endotoxin** Less than 0.01 EU per µg by the LAL method.

**Purity** >95% as determined by SDS-PAGE.

**Bioactivity** Measured by its binding ability in a functional ELISA. Immobilized Human Siglec-3, Llama IgG2b Fc Tag, low endotoxin (Cat. No. CD3-H5259) at 5 µg/mL (100 µL/well) can bind Anti-CD33, Human IgG1 with a linear range of 0.078-1.25 µg/mL (QC tested).

### Formulation and Storage

**Formulation** Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, pH7.5. 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°C or lower. Please avoid repeated freeze-thaw cycles.

No activity loss was observed after storage at:

- 4-8°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

### Background

**Background** Myeloid cell surface antigen CD33 is also known as SIGLEC3, Siglecs (sialic acid binding Ig-like 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<sub>H</sub>-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.

### References

- (1) Garnache-Ottou F., et al., 2005, Blood 105 (3): 1256-64.
- (2) Hernández-Caselles T, et al., 2006, J. Leukoc. Biol. 79 (1): 46-58.
- (3) Walter RB, et al., 2007, Blood 109 (10): 4168-70.
- (4) Ulyanova, T. et al., 1999, Eur. J. Immunol. 29:3440.
- (5) Crocker, P.R. and A. Varki, 2001, Immunology 103:137.

Please contact us at [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com), if you have any questions about this product.

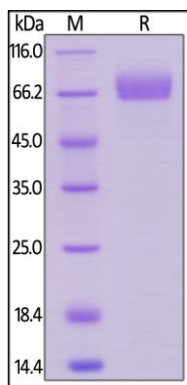
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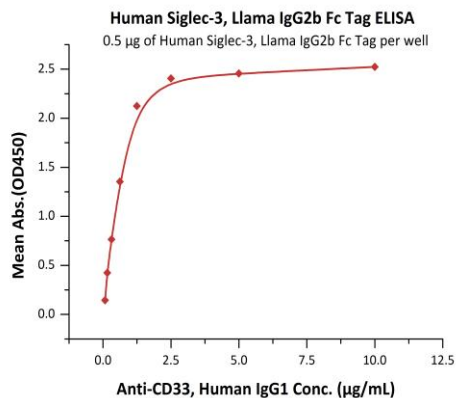
### Assay Data

#### SDS-PAGE Data



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

#### Bioactivity Data



Immobilized Human Siglec-3, Llama IgG2b Fc Tag, low endotoxin (Cat. No. CD3-H5259) at 5 µg/mL (100 µL/well) can bind Anti-CD33, Human IgG1 with a linear range of 0.078-1.25 µg/mL (QC tested).

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.