

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
--	--------------------------------------

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_H-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, if you have any questions about this product.

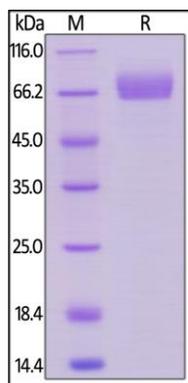
Human Siglec-3 / CD33 Protein, Llama IgG2b Fc Tag, low endotoxin

Catalog # CD3-H5259

For Research Use Only

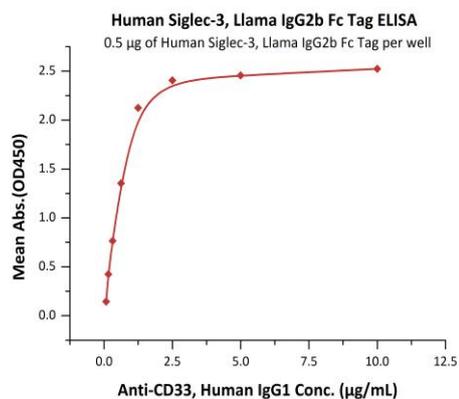
Assay Data

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.