

Datasheet

Biotinylated Human Siglec-3 / CD33 Protein, Avi Tag (Avitag™)

Catalog # AMS.CD3-H82E7

For Research Use Only

Description

Source MABSol@Biotinylated Human Siglec-3 / CD33, His Tag (CD3-H82E7) 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



Molecular Characterization This protein carries an Avi tag (Avitag™) at the C-terminus, followed by a polyhistidine tag. The protein has a calculated MW of 29.4 kDa. The protein migrates as 45-55 kDa on a SDS-PAGE gel under reducing (R) condition due to glycosylation.

Biotinylation Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Biotin:Protein Ratio The biotin to protein ratio is 0.5-1 as determined by the HABA assay.

Endotoxin Less than 1.0 EU per µg by the LAL method.

Purity >90% as determined by reduced SDS-PAGE.

Formulation and Storage

Formulation Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization. Contact us for customized product form or formulation.

Reconstitution Reconstitute at 100 µg/mL in sterile deionized water. 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 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-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.

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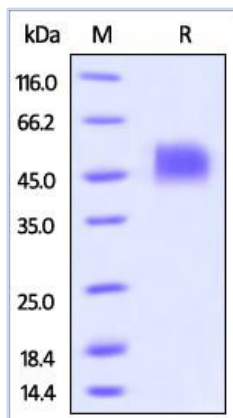
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Assay Data

SDS-PAGE Data



Biotinylated Human Siglec-3 / CD33, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

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