Biotinylated Human Siglec-15 / CD33L3 Protein, Fc,Avitag™

Catalog # SG5-H82F5

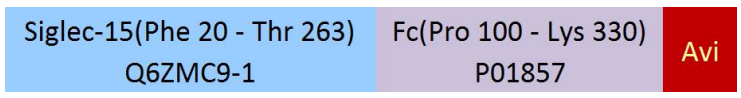
Synonym

CD33 antigen-like 3,SIGLEC-15,CD33L3,sialic acid-binding Ig-like lectin 15,Siglec15,Siglec-15

Source

Biotinylated Human Siglec-15, Fc,Avitag(SG5-H82F5) is expressed from human 293 cells (HEK293). It contains AA Phe 20 - Thr 263 (Accession # Q6ZMC9-1). Predicted N-terminus: Phe 20

Molecular Characterization



This protein carries a human IgG1 Fc tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 54.8 kDa. The protein migrates as 58 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

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

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm 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

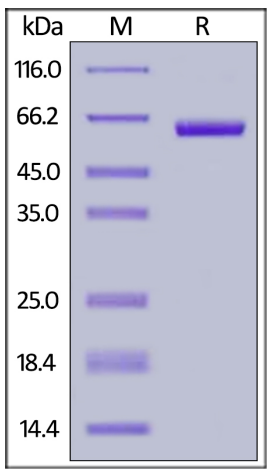
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

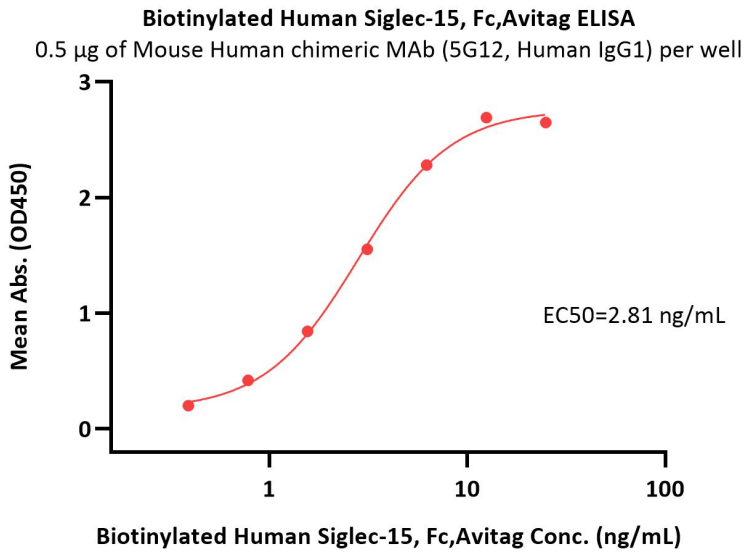
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



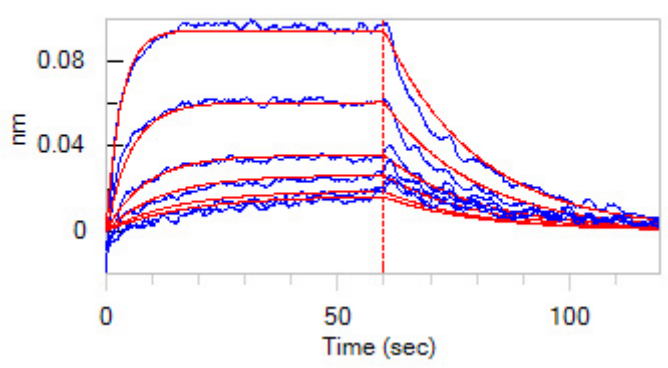
Biotinylated Human Siglec-15, Fc,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



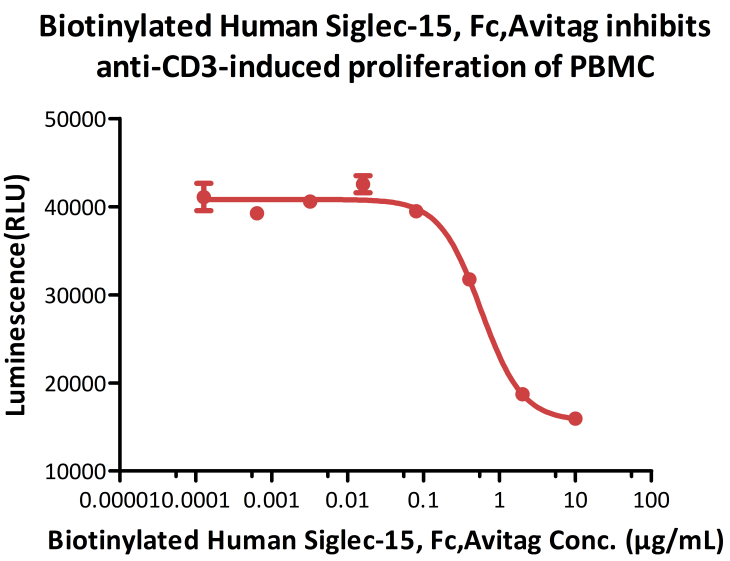
Immobilized Mouse Human chimeric MAb (5G12, Human IgG1) at 5 μg/mL (100 μL/well) can bind Biotinylated Human Siglec-15, Fc,Avitag (Cat. No. SG5-H82F5) with a linear range of 0.4-3 ng/mL (QC tested).

Bioactivity-BLI



Loaded Biotinylated Human Siglec-15, Fc,Avitag (Cat. No. SG5-H82F5) on SA Biosensor, can bind Human CD44, Fc Tag (HPLC-verified) (Cat. No. PG1-H5255) with an affinity constant of 926 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Bioactivity-CELL BASE



Biotinylated Human Siglec-15, Fc,Avitag (Cat. No. SG5-H82F5) inhibits Anti-CD3-induced proliferation of PBMC. The ED50 for this effect is 0.48-0.57 μg/mL (Routinely tested).

Background

Siglec-15 is a DAP12-associated immunoreceptor, which belongs to the immunoglobulin superfamily and SIGLEC (sialic acid binding Ig-like lectin) family. Siglecs are cell surface proteins that bind sialic acid. They are found primarily on the surface of immune cells and are a subset of the I-type lectins. Siglec-15 consisting of immunoglobulin (Ig)-like domains, transmembrane domain and a short cytoplasmic tail. Siglec-15 is that recognizes sialylated glycans and regulates osteoclast differentiation. Siglec-15 is a potential therapeutic target for osteoporosis and plays a conserved regulatory role in the immune system of vertebrates.