Biotinylated Human TIGIT Protein, Fc,Avitag™ (MALS verified)

Catalog # TIT-H82F1

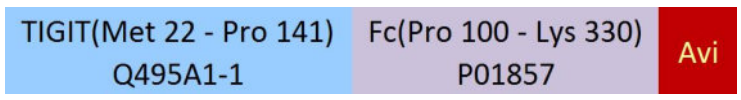
Synonym

TIGIT,VSIG9,VSTM3

Source

Biotinylated Human TIGIT, Fc,Avitag(TIT-H82F1) is expressed from human 293 cells (HEK293). It contains AA Met 22 - Pro 141 (Accession # Q495A1-1). Predicted N-terminus: Met 22

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 41.3 kDa. The protein migrates as 45-55 kDa under reducing (R) condition, and 85-115 kDa under non-reducing (NR) 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 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

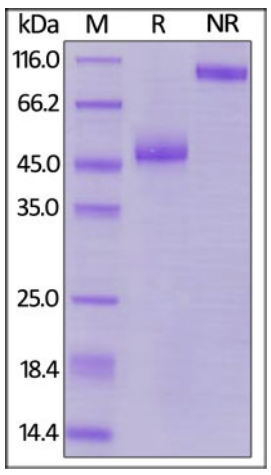
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

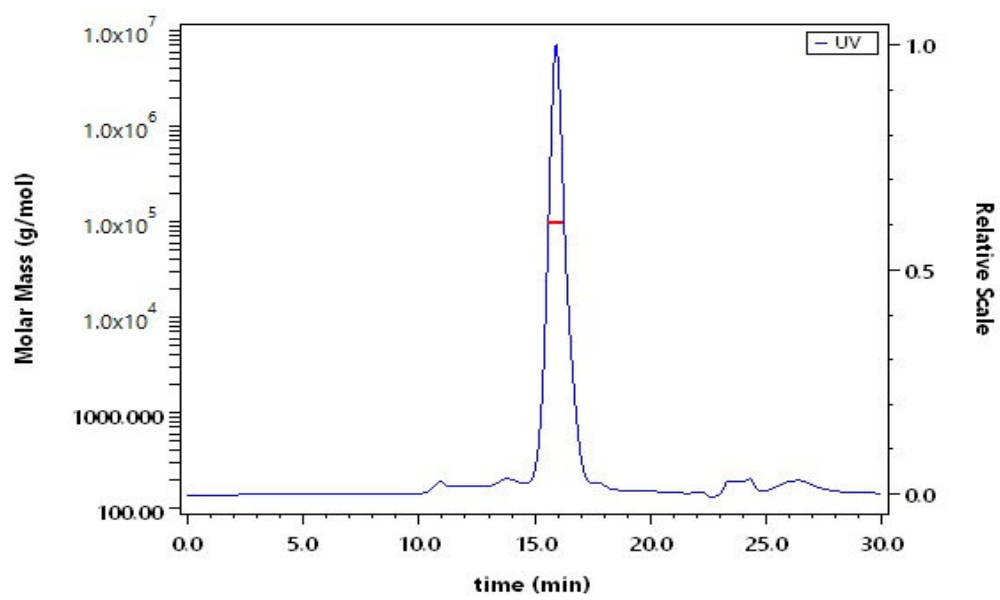
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



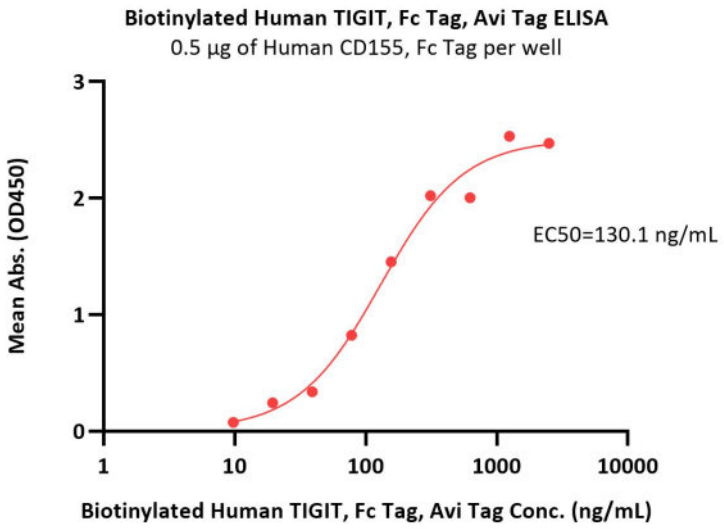
Biotinylated Human TIGIT, Fc,Avitag on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS

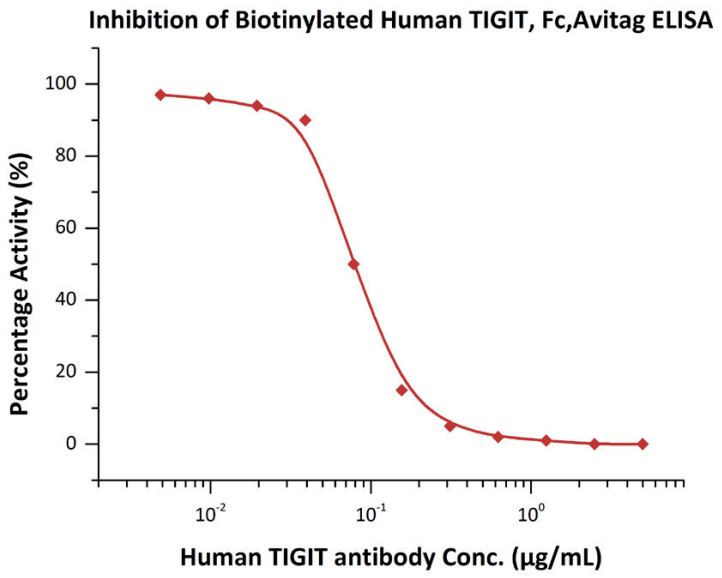


The purity of Biotinylated Human TIGIT, Fc,Avitag (Cat. No. TIT-H82F1) is more than 85% and the molecular weight of this protein is around 95-115 kDa verified by SEC-MALS.
Report

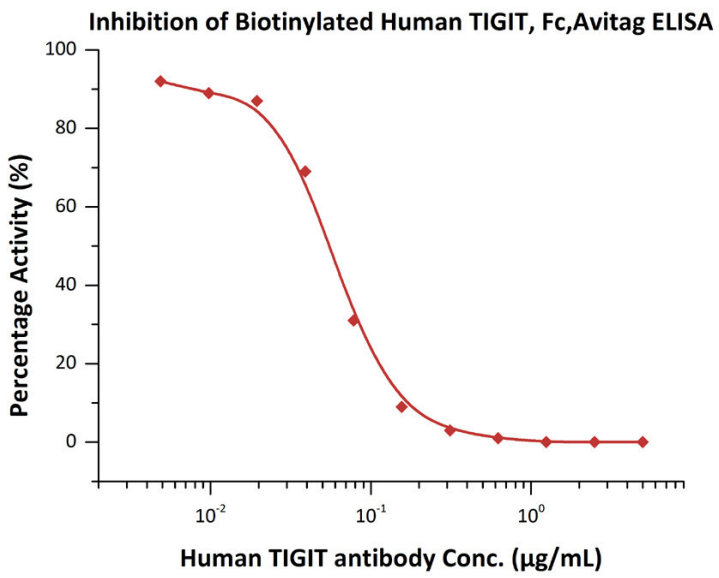
Bioactivity-ELISA



Immobilized Human CD155, Fc Tag (Cat. No. CD5-H5251) at 5 μg/mL (100 μL/well) can bind Biotinylated Human TIGIT, Fc,Avitag (Cat. No. TIT-H82F1) with a linear range of 10-156 ng/mL (QC tested).

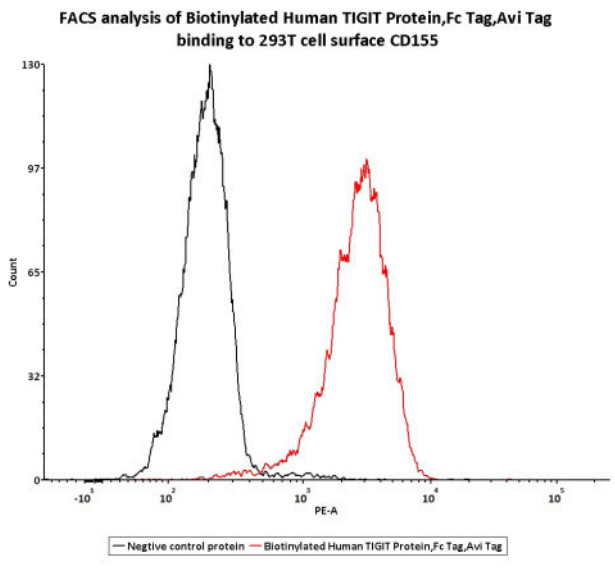


Serial dilutions of Human TIGIT Neutralizing antibody were added into Human CD155, Mouse IgG2a Fc Tag, low endotoxin (Cat. No. CD5-H5254): Biotinylated Human TIGIT, Fc,Avitag (Cat. No. TIT-H82F1) binding reactions. The half maximal inhibitory concentration (IC50) is 0.08116 μg/mL (Routinely tested).



Serial dilutions of Human TIGIT Neutralizing antibody were added into Human CD155, Fc Tag (Cat. No. CD5-H5251): Biotinylated Human TIGIT, Fc,Avitag (Cat. No. TIT-H82F1) binding reactions. The half maximal inhibitory concentration (IC50) is 0.06065 μg/mL (Routinely tested).

Bioactivity-FACS



FACS assay shows Biotinylated Human TIGIT, Fc,Avitag (Cat. No. TIT-H82F1) can bind to 293T cell overexpressing human CD155. The concentration of TIGIT is 0.03 μg/mL (Routinely tested).

Background

T-cell immunoreceptor with Ig and ITIM domains (TIGIT) is also known as V-set and immunoglobulin domain-containing protein 9 (VSIG9), V-set and transmembrane domain-containing protein 3 (VSTM3),which belongs to single-pass type I membrane protein containing an immunoglobulin variable domain, a transmembrane domain and an immunoreceptor tyrosine-based inhibitory motif (ITIM). TIGIT is expressed at low levels on peripheral memory and regulatory CD4+ T-cells and NK cells and is up-regulated following activation of these cells (at protein level). TIGIT binds with high affinity to the poliovirus receptor (PVR) which causes increased secretion of IL10 and decreased secretion of IL12B and suppresses T-cell activation by promoting the generation of mature immunoregulatory dendritic cells.