

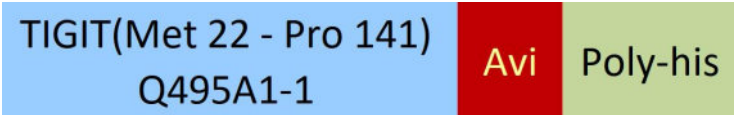
Synonym

TIGIT,VSIG9,VSTM3

Source

Biotinylated Human TIGIT, Avitag,His Tag (recommended for biopanning) (TIT-H82E5) 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 an Avi tag (Avitag™) at the C-terminus, followed by a polyhistidine tag.
The protein has a calculated MW of 16.8 kDa. The protein migrates as 18-25 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Application

TIT-H82E5 works best for experiments that test the binding between TIGIT and candidate antibodies, such as biopanning and other relevant assays.
This product is NOT suitable for testing TIGIT-CD155 binding. For this type of application, we strongly recommend you to choose TIT-H82F1 as an alternative.

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

>95% as determined by SDS-PAGE.

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.

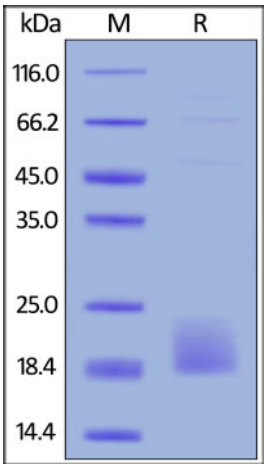
Reconstitution

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

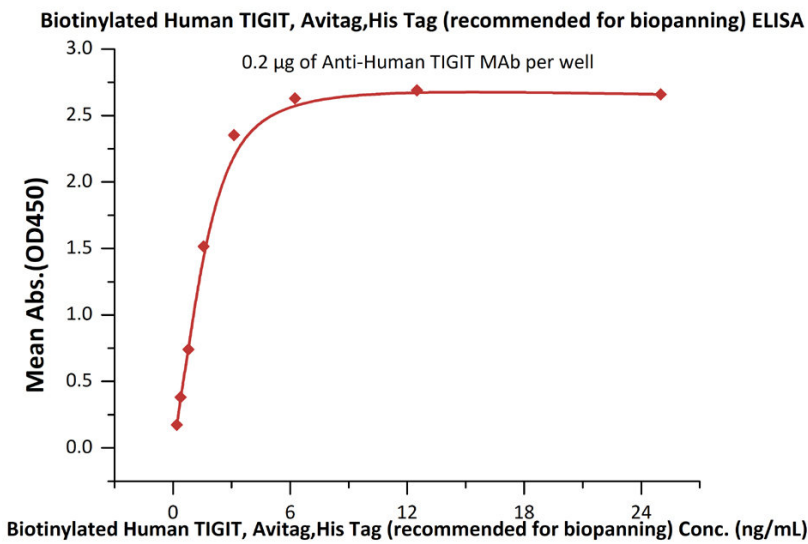
For long term storage, the product should be stored at lyophilized state at -20°C or lower.
Please avoid repeated freeze-thaw cycles.
This product is stable after storage at:
• -20°C to -70°C for 12 months in lyophilized state;
• -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



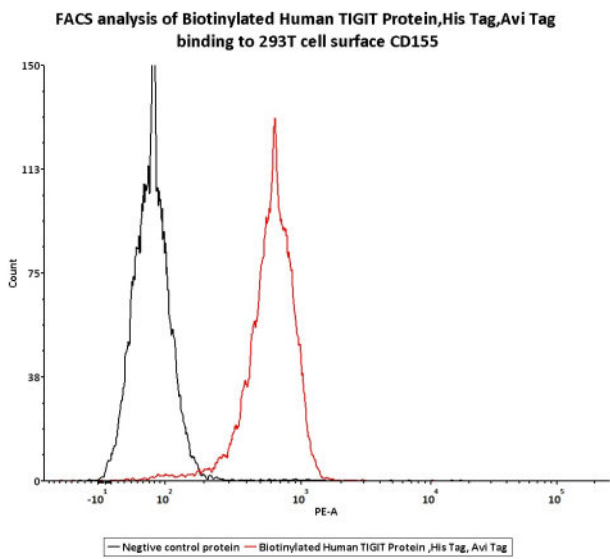
Biotinylated Human TIGIT, Avitag,His Tag (recommended for biopanning) on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



Immobilized Anti-Human TIGIT MAb at 2 µg/mL (100 µL/well) can bind Biotinylated Human TIGIT, Avitag,His Tag (recommended for biopanning) (Cat. No. [TIT-H82E5](#)) with a linear range of 0.2-3 ng/mL (QC tested).

Bioactivity-FACS



FACS assay shows Biotinylated Human TIGIT, Avitag,His Tag (recommended for biopanning) (Cat. No. [TIT-H82E5](#)) 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.

References

(1) [Yu X., et al., 2009, Nat. Immunol. 10:48-57.](#)
(2) [Stengel K.F., et al., 2012, Proc. Natl. Acad. Sci. U.S.A. 109:5399-5404.](#)
(3) [Lozano E., et al., 2012, J. Immunol. 188:3869-3875.](#)

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.