

### Synonym

TIGIT, VSIG9, VSTM3

### Source

Biotinylated Mouse TIGIT Protein, His,Avitag(TIT-M82E9) is expressed from human 293 cells (HEK293). It contains AA Gly 26 - Thr 143 (Accession # [A0A0B4J1G6-1](#) ).

Predicted N-terminus: Gly 26

### Molecular Characterization

This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™)

The protein has a calculated MW of 30.2 kDa. The protein migrates as 38-45 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) 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.

### Endotoxin

Less than 1.0 EU per µg by the LAL method.

### Purity

>90% 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

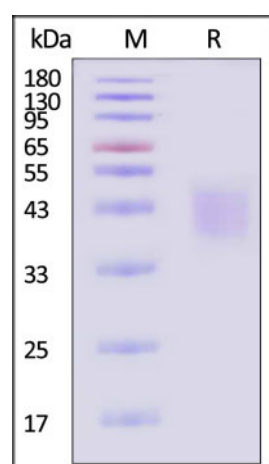
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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



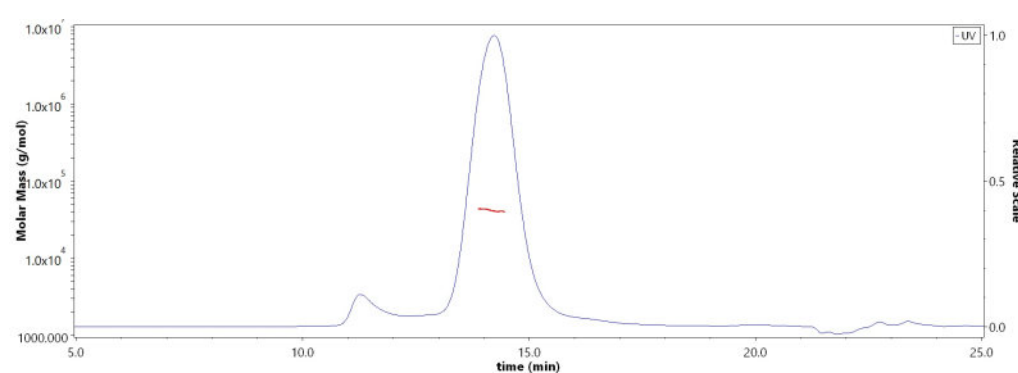
Biotinylated Mouse TIGIT Protein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

### Bioactivity-ELISA

TIGIT ELISA

Immobilized Mouse CD155, Mouse IgG2a Fc Tag (Cat. No. CD5-M5254) at 5 µg/mL (100 µL/well) can bind Biotinylated Mouse TIGIT Protein, His,Avitag (Cat. No. TIT-M82E9) with a linear range of 0.2-16 ng/mL (QC tested).

### SEC-MALS



The purity of Biotinylated Mouse TIGIT Protein, His,Avitag (Cat. No. TIT-M82E9) is more than 85% and the molecular weight of this protein is around 35-50 kDa verified by SEC-MALS.

[Report](#)

## **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<sup>+</sup> 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.

## **Clinical and Translational Updates**

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.