

**Synonym**

TIGIT, VSIG9, VSTM3

**Source**

Human TIGIT, His Tag (TIT-H52H3) is expressed from human 293 cells (HEK293). It contains AA Met 22 - Pro 141 (Accession # [Q495A1-1](#)).

Predicted N-terminus: Met 22

**Molecular Characterization**

TIGIT(Met 22 - Pro 141)  
Q495A1-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 14.9 kDa. The protein migrates as 17-21 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per  $\mu\text{g}$  by the LAL method.

**Purity**

>95% as determined by SDS-PAGE.

>90% as determined by SEC-HPLC.

**Formulation**

Lyophilized from 0.22  $\mu\text{m}$  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.*

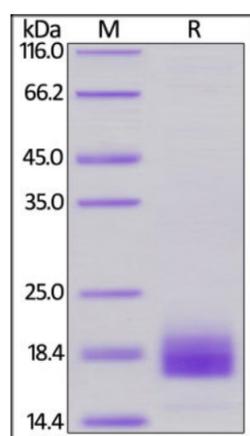
**Storage**

For long term storage, the product should be stored at lyophilized state at  $-20^{\circ}\text{C}$  or lower.

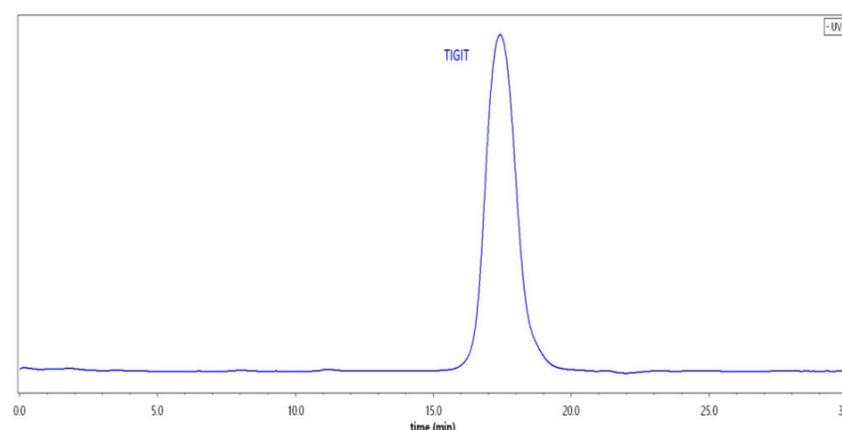
*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

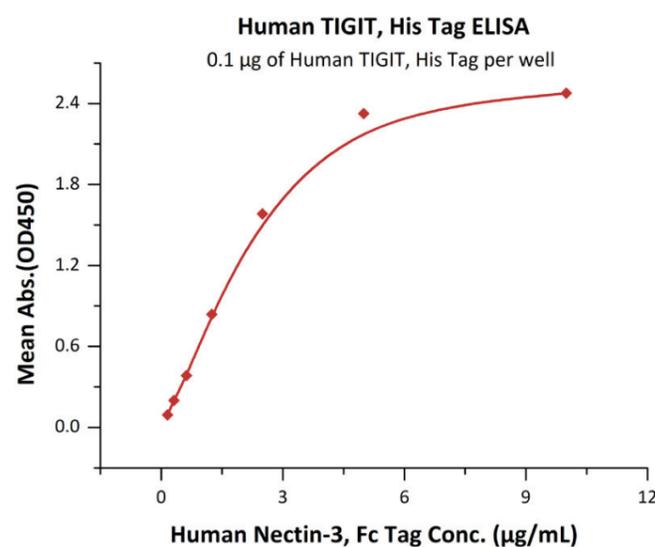
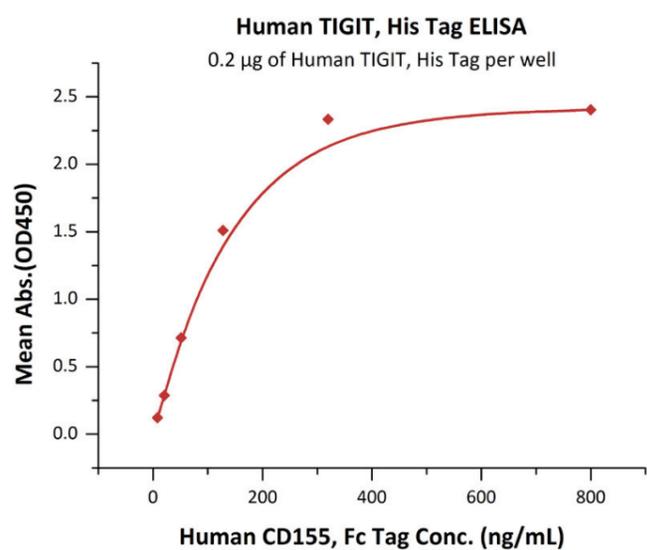
- $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$  for 12 months in lyophilized state;
- $-70^{\circ}\text{C}$  for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**

Human TIGIT, 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 95%.

**Bioactivity-ELISA****SEC-HPLC**

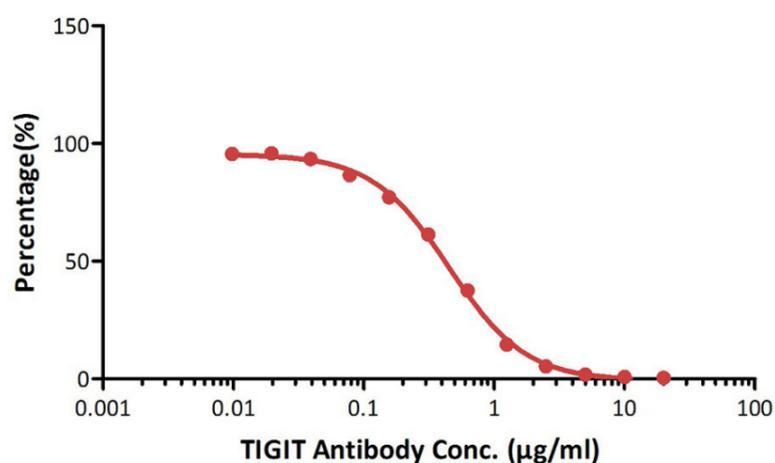
The purity of Human TIGIT, His Tag (Cat. No. TIT-H52H3) was greater than 90% as determined by SEC-HPLC.



Immobilized Human TIGIT, His Tag (Cat. No. [TIT-H52H3](#)) at 2 µg/mL (100 µL/well) can bind Human CD155, Fc Tag (Cat. No. [CD5-H5251](#)) with a linear range of 8-128 ng/mL (QC tested).

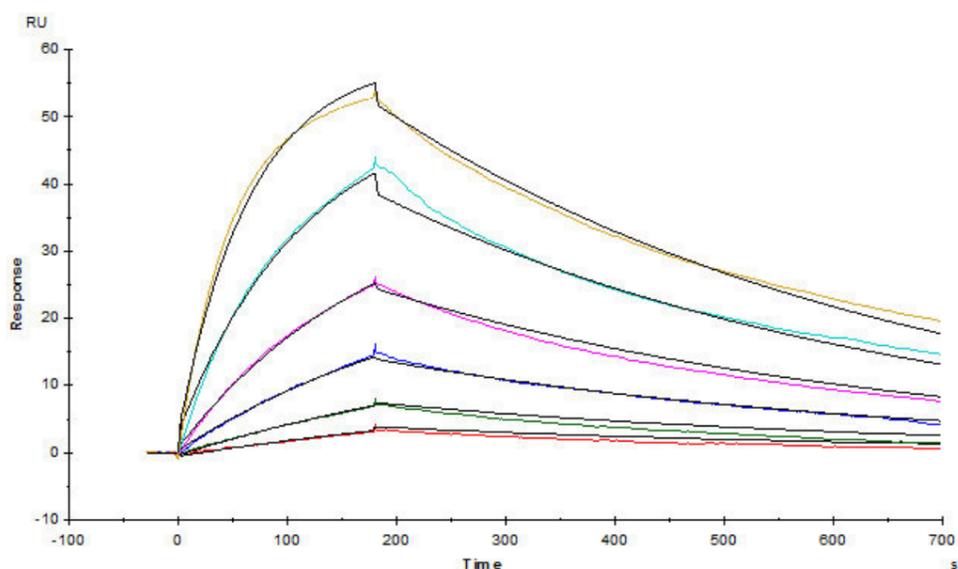
Immobilized Human TIGIT, His Tag (Cat. No. [TIT-H52H3](#)) at 1 µg/mL (100 µL/well) can bind Human Nectin-3, Fc Tag (Cat. No. [PV3-H5255](#)) with a linear range of 0.2-2.5 µg/mL (Routinely tested).

**TIGIT:CD155 Inhibitor Screening ELISA Assay Pair**



Serial dilutions of TIGIT antibody (1:2 serial dilutions, from 20 µg/mL to 0.0097 µg/mL) were added into Human TIGIT, His Tag (Cat. No. [TIT-H52H3](#)): Biotinylated Human CD155, Fc Tag (Cat. No. [CD5-H82F6](#)) binding reactions. The assay was performed according to the above described protocol. Background was subtracted from data points before curve fitting.

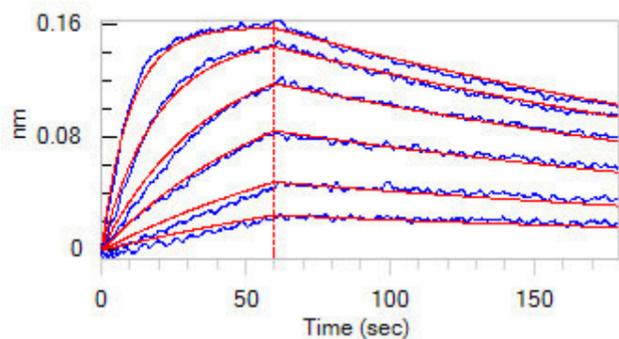
**Bioactivity-SPR**



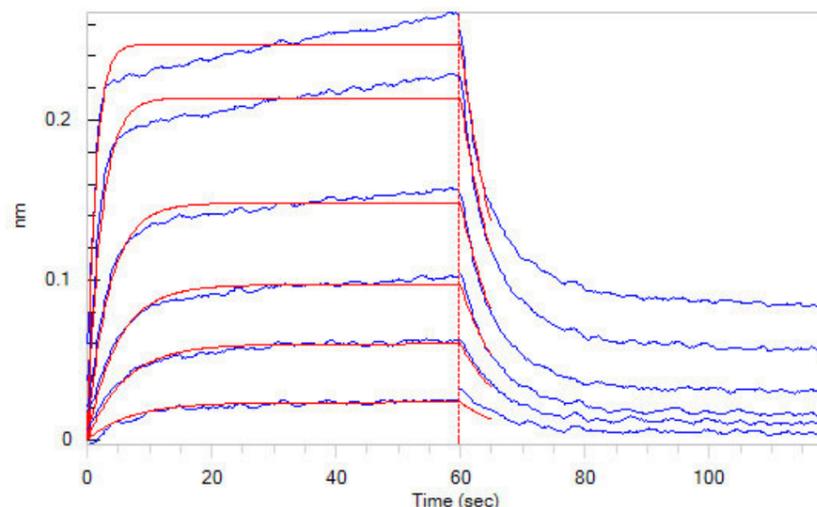
Anti-Human TIGIT MAb (Mouse IgG1) captured on CM5 chip via Anti-Mouse antibodies surface, can bind Human TIGIT, His Tag (Cat. No. TIT-

H52H3) with an affinity constant of 3.93 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

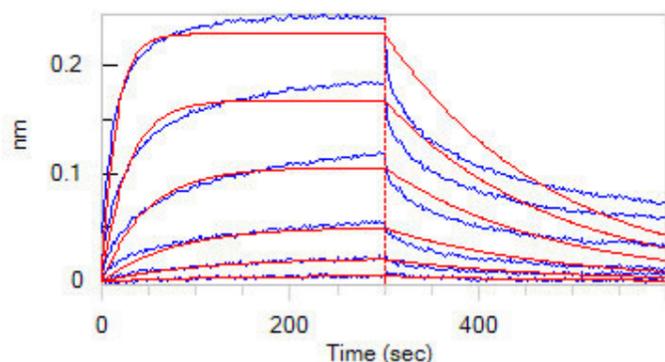
**Bioactivity-BLI**



Loaded Anti-Human TIGIT MAb (Mouse IgG1) on AMC Biosensor, can bind Human TIGIT, His Tag (Cat. No. TIT-H52H3) with an affinity constant of 3.72 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

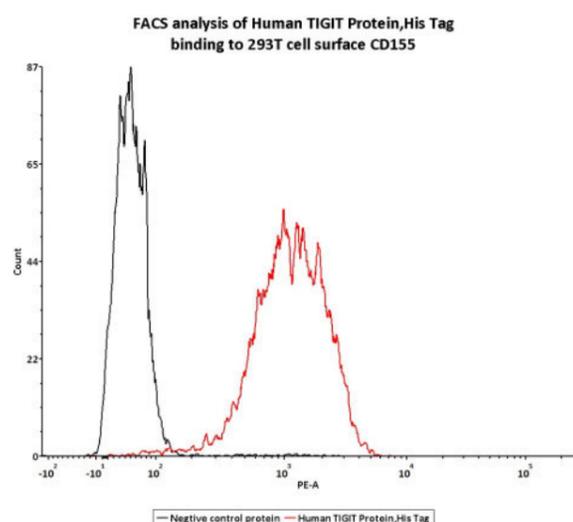


Loaded Human CD155, Fc Tag (Cat. No. CD5-H5251) on Protein A Biosensor, can bind Human TIGIT, His Tag (Cat. No. TIT-H52H3) with an affinity constant of 0.23 μM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Loaded Human Nectin-3, Fc Tag (Cat. No. PV3-H5255) on Protein A Biosensor, can bind Human TIGIT, His Tag (Cat. No. TIT-H52H3) with an affinity constant of 0.732 μM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

**Bioactivity-FACS**



FACS assay shows that Human TIGIT, His Tag (Cat. No. TIT-H52H3) can bind to 293T cell overexpressing human CD155. The concentration of TIGIT used is 0.3 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<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.

### References

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