

## Datasheet

### Biotinylated Human TIGIT Protein, Fc Tag, Avi Tag (Avitag™)

Catalog # AMS.TIT-H82F1-25UG

For Research Use Only

#### Description

**Source** MABSol® Biotinylated Human TIGIT, Fc Tag is expressed from human HEK293 cells. It contains AA Met 22 - Pro 141 (Accession # AAI01290).

**Predicted N-terminus** Met 22

#### Protein Structure



**Molecular Characterization** This protein carries a human IgG1 Fc fragment at the C-terminus, followed by an Avi tag (Avitag™). The protein has a calculated MW of 41.5 kDa. The protein migrates as 50 kDa on a SDS-PAGE gel under reducing (R) condition due to glycosylation and 75-116 kDa under non-reducing (NR) condition.

**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.

**Bioactivity** Measured by its binding ability in a functional ELISA against immobilized Human CD155, Fc Tag  
The linear range is 0.02-0.3 µg/mL.

#### Formulation and Storage

**Formulation** Lyophilized from 0.22 µm filtered solution in 50 mM tris, 100 mM glycine, pH7.5. Normally Trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

**Reconstitution** Reconstitute at 100 µg/mL in sterile deionized water. 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.

No activity loss was observed after storage at:

- 4-8°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

#### Background

**Background** T-cell immunoreceptor with Ig and ITIM domains (TIGIT) is also known as V-set and immunoglobulin domain-containing protein 9 (VSI9), 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.

AMSBIO | [www.amsbio.com](http://www.amsbio.com) | [info@amsbio.com](mailto:info@amsbio.com)



**UK & Rest of the World**  
184 Park Drive, Milton Park  
Abingdon OX14 4SE, UK  
T: +44 (0)1235 828 200  
F: +44 (0) 1235 820 482



**North America**  
1035 Cambridge Street,  
Cambridge, MA 02141  
T: +1 (617) 945-5033 or  
T: +1 (800) 987-0985  
F: +1 (617) 945-8218



**Germany**  
Bockenheimer Landstr. 17/19  
60325 Frankfurt/Main  
T: +49 (0) 69 779099  
F: +49 (0) 69 13376880



**Switzerland**  
Centro Nord-Sud 2E  
CH-6934 Bioggio-Lugano  
T: +41(0) 91 604 55 22  
F: +41(0) 91 605 17 85

## Datasheet

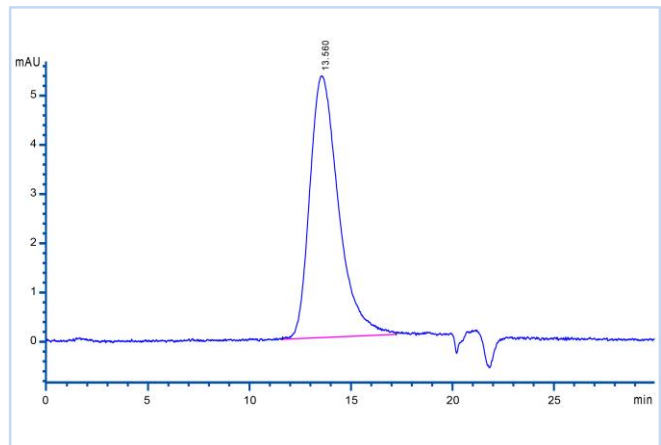
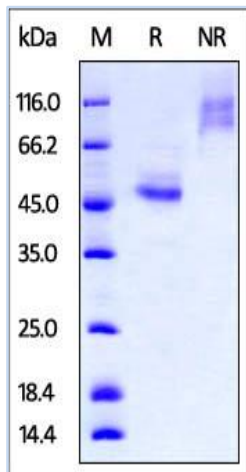
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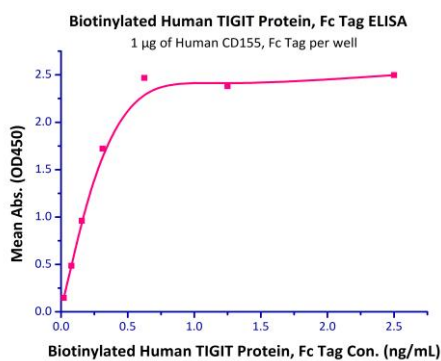
#### Assay Data

##### SDS-PAGE Data

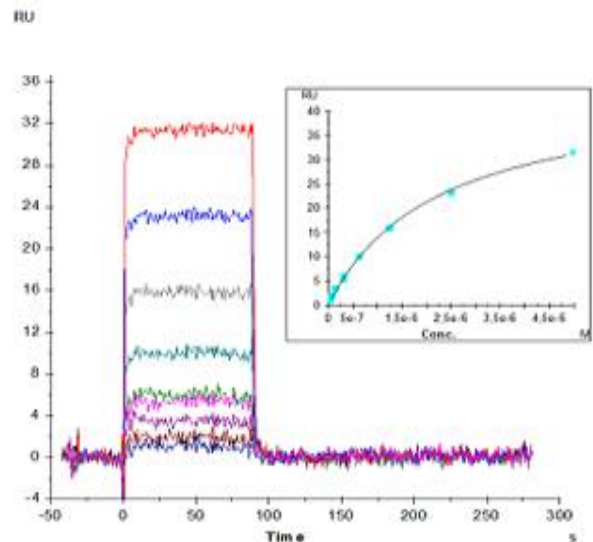


Biotinylated Human TIGIT, Fc Tag on SDS-PAGE under reducing (R) and no-reducing (NR) conditions. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

##### Bioactivity Data



Immobilized Human CD155, Fc Tag (Cat# AMS.CD5 H5251) at 10 µg/mL (100 µL/well) can bind Biotinylated Human TIGIT, Fc Tag (Catalog # AMS.TIT H82F1) with a linear range of 0.02-0.3 µg/mL.



AMSBIO | [www.amsbio.com](http://www.amsbio.com) | [info@amsbio.com](mailto:info@amsbio.com)

 **UK & Rest of the World**  
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Abingdon OX14 4SE, UK  
T: +44 (0) 1235 828 200  
F: +44 (0) 1235 820 482

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T: +1 (617) 945-5033 or  
T: +1 (800) 987-0985  
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T: +49 (0) 69 779099  
F: +49 (0) 69 13376880

 **Switzerland**  
Centro Nord-Sud 2E  
CH-6934 Bioggio-Lugano  
T: +41(0) 91 604 55 22  
F: +41(0) 91 605 17 85