

**Synonym**

HAVCR2,TIM3,TIMD3,FLJ14428,KIM3

**Source**

Human TIM-3 (22-200) Protein, Fc Tag(TM3-H5258) is expressed from human 293 cells (HEK293). It contains AA Ser 22 - Arg 200 (Accession # [Q8TDQ0-1](#)).

Predicted N-terminus: Ser 22

**Molecular Characterization**

TIM-3(Ser 22 - Arg 200) Q8TDQ0-1	Fc(Pro 100 - Lys 330) P01857
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This protein carries a human IgG1 Fc tag at the C-terminus

The protein has a calculated MW of 46.5 kDa. The protein migrates as 60-80 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>85% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

**Formulation**

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, 25 mM Arginine, 150 mM 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.*

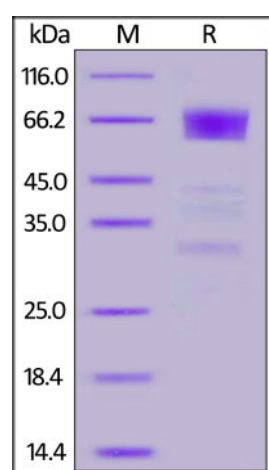
**Storage**

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

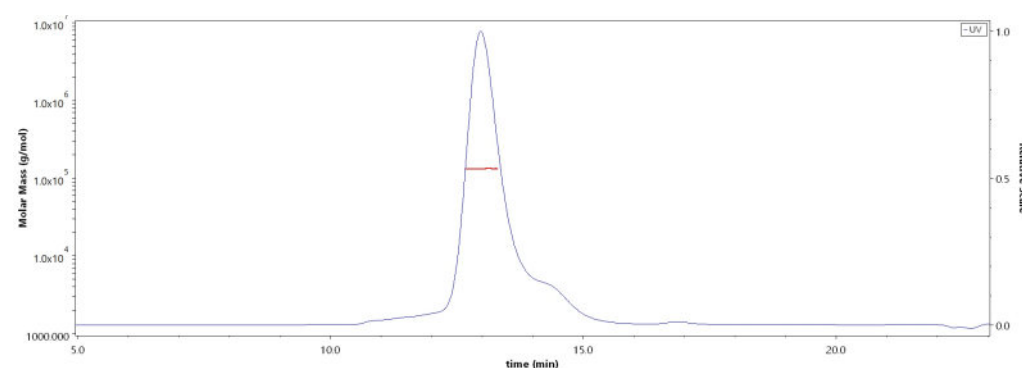
*Please avoid repeated freeze-thaw cycles.*

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.

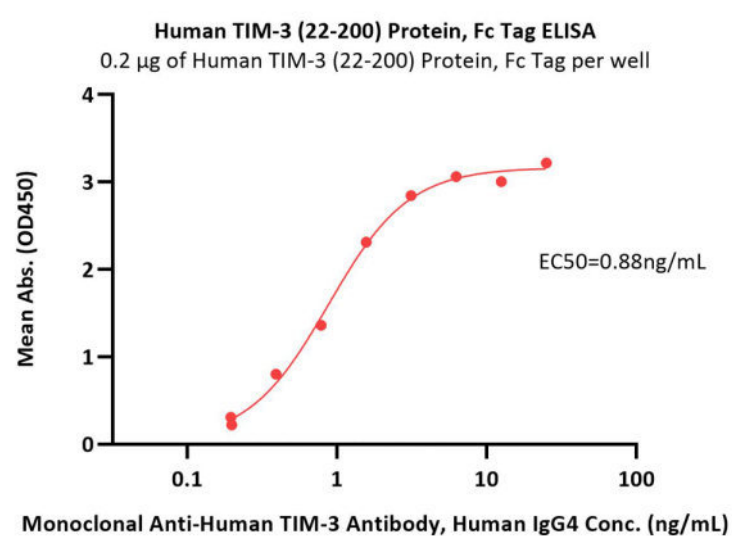
**SDS-PAGE**

Human TIM-3 (22-200) Protein, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 85%.

**Bioactivity-ELISA****SEC-MALS**

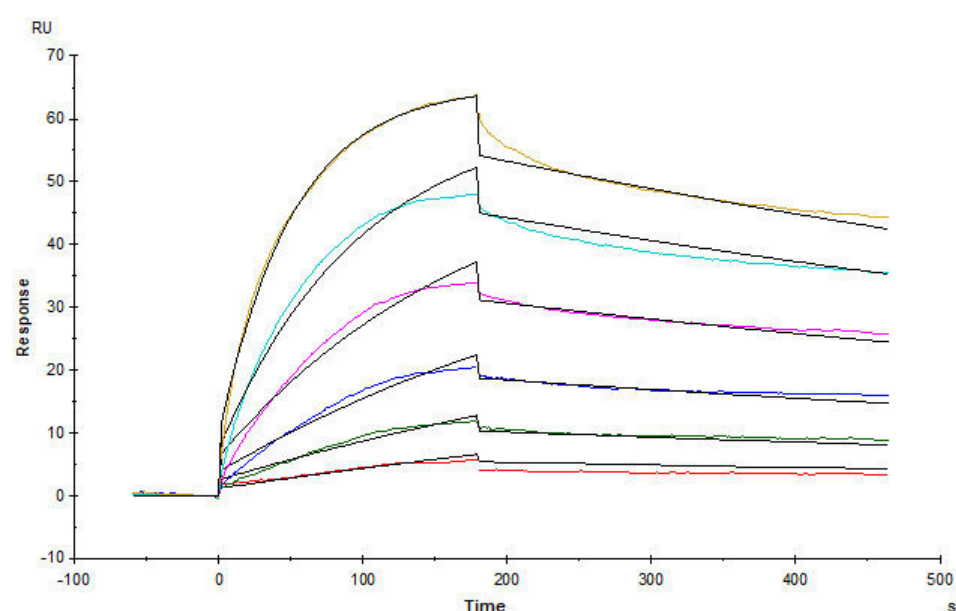
The purity of Human TIM-3 (22-200) Protein, Fc Tag (Cat. No. TM3-H5258) is more than 90% and the molecular weight of this protein is around 120-140 kDa verified by SEC-MALS.

[Report](#)



Immobilized Human TIM-3 (22-200) Protein, Fc Tag (Cat. No. TM3-H5258) at 2 µg/mL (100 µL/well) can bind Monoclonal Anti-Human TIM-3 Antibody, Human IgG4 with a linear range of 0.2-2 ng/mL (QC tested).

### Bioactivity-SPR



Human TIM-3 (22-200) Protein, Fc Tag (Cat. No. TM3-H5258) captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind Human Galectin-9, His Tag (Cat. No. LG9-H5244) with an affinity constant of 57 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

### Background

Hepatitis A virus cellular receptor 2 is also known as HAVCR2, FLJ14428, KIM3, TIM3, TIMD3, is a member of the TIM family of immune regulating molecules with one Ig-like V-type domain and a Ser/Thr-rich mucin stalk. CD4-positive T helper lymphocytes can be divided into types 1 (Th1) and 2 (Th2) on the basis of their cytokine secretion patterns. Th1 cells and their associated cytokines are involved in cell-mediated immunity to intracellular pathogens and delayed-type hypersensitivity reactions, whereas Th2 cells are involved in the control of extracellular helminthic infections and the promotion of atopic and allergic diseases. The 2 types of cells also cross-regulate the functions of the other. HAVCR2 is a Th1-specific cell surface protein that regulates macrophage activation and enhances the severity of experimental autoimmune encephalomyelitis in mice. HAVCR2 regulates macrophage activation. Inhibits T-helper type 1 lymphocyte (Th1)-mediated auto- and alloimmune responses and promotes immunological tolerance. May be also involved in T-cell homing. Dysregulation of the HAVCR2-galectin-9 pathway could underlie chronic autoimmune disease states in human, such as multiple sclerosis.

### Clinical and Translational Updates

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