## Biotinylated Human TIM-3 / HAVCR2 Protein, Avitag™, His Tag (MALS verified)

Poly-his





### **Synonym**

HAVCR2,TIM3,TIMD3,FLJ14428,KIM3

#### Source

Biotinylated Human TIM-3, Avitag, His Tag(TM3-H82E7) 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

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

The protein has a calculated MW of 23.1 kDa. The protein migrates as 40-50 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

#### Labeling

Biotinylation of this product is performed using Avitag<sup>TM</sup> 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  $\mu g$  by the LAL method.

## **Purity**

>90% as determined by SDS-PAGE.

#### **Formulation**

Lyophilized from 0.22  $\mu m$  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

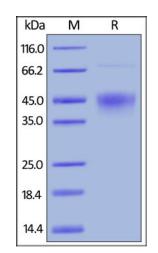
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

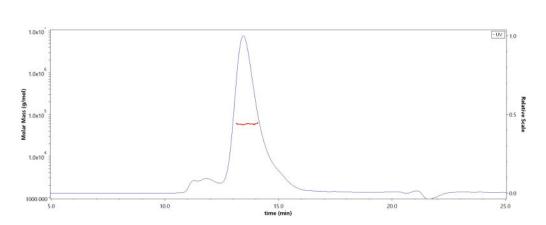
### **SDS-PAGE**



Biotinylated Human TIM-3, Avitag, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

## **Bioactivity-ELISA**

### **SEC-MALS**



The purity of Biotinylated Human TIM-3, Avitag, His Tag (Cat. No. TM3-H82E7) is more than 85% and the molecular weight of this protein is around 45-65 kDa verified by SEC-MALS.

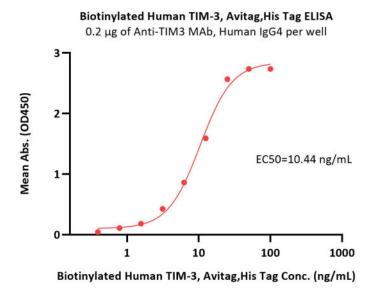
Report



# Biotinylated Human TIM-3 / HAVCR2 Protein, Avitag™, His Tag (MALS verified)







Immobilized Anti-TIM3 MAb, Human IgG4 at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Biotinylated Human TIM-3, Avitag,His Tag (Cat. No. TM3-H82E7) with a linear range of 0.4-13 ng/mL (QC 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 <u>TechSupport@acrobiosystems.com</u> if you have any question on this product.

