

## Technical Data Sheet

### Human Tim-3 Protein (C-His)

**Catalog Number:** 602101, 602102  
**Size:** 25 ug, 100 ug  
**Target Name:** TIM3, HAVCR2, TIMD3, FLJ14428, KIM3  
**Regulatory Status:** RUO

#### Product Details

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**Application:** ELISA, BLI  
**Format:** Liquid, Purified  
**Expression Host:** CHO  
**Species:** Human  
**Accession Number:** Q8TDQ0  
**Sources:** Recombinant human Tim-3 protein (Ser22-Arg200) with C-terminus His tag was expressed in CHO Cells.  
**Molecular Weight:** This protein has a predicted molecular weight of 21.4 kDa. Under DTT-reducing conditions, the protein migrates at approximately 45 kDa on SDS-PAGE.  
**Affinity Tag:** C-His  
**Purity:** >95% based on SDS-PAGE under reducing condition  
**Formulation:** 1xPBS buffer, pH7.4, 0.22 µm filtered  
**Endotoxin level:** Not tested  
**Protein Concentration:** 25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.  
**Storage and Handling:** Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 µm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at ≤ -70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

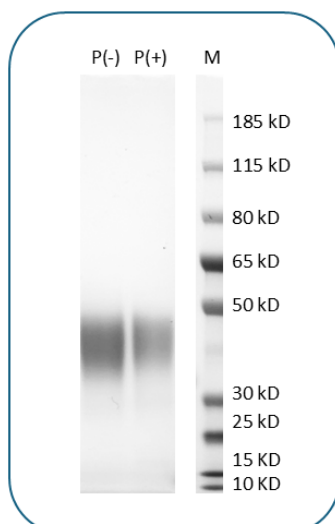
#### Background Information

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HAVCR2, also known as TIM-3, is a transmembrane glycoprotein predominantly expressed on terminally differentiated Th1 cells and various activated immune cells such as CD8+ T cells, NK cells, dendritic cells, and macrophages. It contains an IgV-like domain and a Ser/Thr-rich mucin region. TIM-3 interacts with its ligand Galectin-9 to negatively regulate IFN- $\gamma$  production, promote immune tolerance, and suppress Th1-mediated autoimmune responses. Dysregulation of the TIM-3/Galectin-9 pathway is implicated in chronic autoimmune diseases like multiple sclerosis and systemic lupus erythematosus. TIM-3 also plays an immunosuppressive role in cancer by inhibiting antitumor cytotoxic T cell activity and reducing tumor-infiltrating lymphocytes. The soluble form of TIM-3 (sTIM-3) further impairs T cell-mediated immunity, highlighting its potential as a therapeutic target in autoimmune diseases and cancer.

## Product Data

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Human Tim-3 (C-His) Protein on SDS-PAGE under non-reducing and reducing conditions. The gel was stained for 1 hour with BlinkBlue Protein Staining Buffer (Catalog 700102). The purity of this protein appears to be greater than 95%.