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

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| **Catalog Number:** | 602203, 602204 |
| **Size:** | 25 ug, 100 ug |
| **Target Name:** | TIM3, HAVCR2, TIMD3, FLJ14428, KIM3 |
| **Regulatory Status:** | RUO |

## PRODUCT DETAILS

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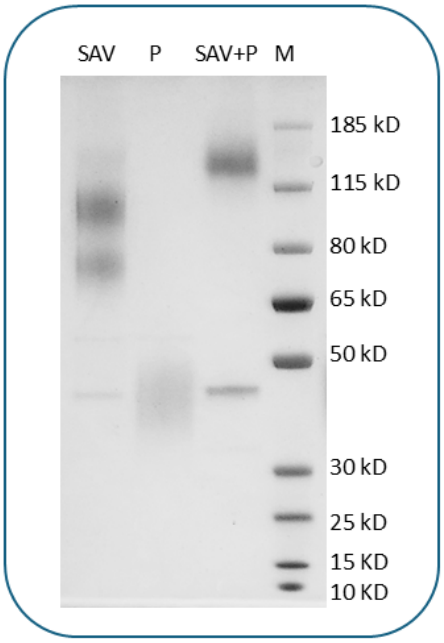
| **Application:** | ELISA, BLI |
| **Format:** | Liquid, Biotinylated |
| **Expression Host:** | CHO |
| **Species:** | Human |
| **Accession Number:** | Q8TDQ0 |
| **Sources:** | Recombinant human Tim-3 protein (Ser22-Arg200) with C-terminus His-Avi tag was expressed in CHO Cells. This protein was site-specifically labeled with Biotin by BirA ligase. |
| **Molecular Weight:** | This protein has a predicted molecular weight of 23.7 kDa. Under DTT-reducing conditions, the protein migrates at approximately 45 kDa on SDS-PAGE. |
| **Affinity Tag:** | C-His-Avi |
| **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

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-γ 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




Biotinylated Human Tim-3 (C-His-Avi) Protein on SDS-PAGE under non-reducing (P-) 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%. Based on Gel shift Assay by co-incubation with Streptavidin, biotinylation efficiency is >90% for Biotinylated Tim-3.