

Technical Data Sheet

Biotinylated Human Tim-3 Protein (C-His-Avi)

Catalog Number: 602203, 602204

Size: 25 ug, 100 ug

Target Name: TIM3, HAVCR2, TIMD3, FLJ14428, KIM3

Regulatory Status: RUO

Product Details

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

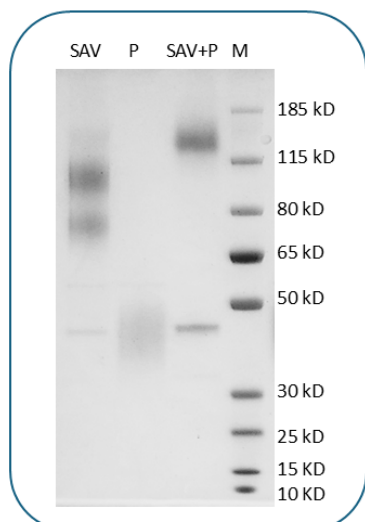
Protein Concentration: 25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.

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.