

## Recombinant Human TIM-3/HAVCR2 Protein (His Tag)

Catalog Number: PDMH100357

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

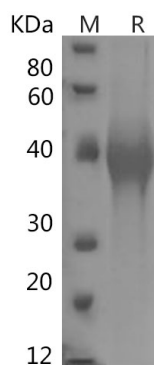
### Description

Species	Human
Source	HEK293 Cells-derived Human TIM-3 protein Met1-Arg200, with an C-terminal His
Calculated MW	21.3 kDa
Observed MW	38 kDa
Accession	Q8TDQ0
Bio-activity	Not validated for activity

### Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

Hepatitis A virus cellular receptor 2 (HAVCR2), formerly known as T cell immunoglobulin and mucin domain-3 (TIM-3), is a transmembrane glycoprotein expressed on the surface of terminally differentiated Th1 cells but not on Th2 cells. It was the first surface molecule that specifically identifies Th1 cells in both mice and human. Recently, identification of Galectin-9 as a ligand for TIM-3 has established the TIM-3-Galectin-9 pathway as an important regulator of Th1 immunity and tolerance induction. Engagement of Tim-3 by its ligand galectin-9 negatively regulates IFN-gamma secretion and influences the ability to induce T cell tolerance in both mice and man. It suggests a novel paradigm in which dysregulation of the TIM-3-galectin-9 pathway could underlie chronic autoimmune disease states, such as multiple sclerosis. Recent work has explored the role of TIM-3 in systemic lupus erythematosus (SLE), and their results indicate that TIM-3 may represent a novel target for the treatment of SLE. Numerous studies have demonstrated that Tim-3 influences autoimmune diseases, including diabetes and multiple sclerosis, and its role in other inflammatory diseases including allergies and cancer is beginning to become clear. In tumor rejection model, soluble form of Tim-3 (sTim-3) significantly impaired T cell antitumor immunity, evidenced by decreased antitumor CTL activity and reduced amount of tumor-infiltrating lymphocytes in tumor. sTim-3 as an immunoregulatory molecule that may be involved in the negative regulation of T cell-mediated immune response.