

#### TIM-3

Catalog # PVGS1556

### **Specification**

#### TIM-3 - Product Information

Primary Accession
Species
Mouse

**Q8VIM0-1** 

Sequence Leu22-Ala193

**Purity** 

> 97% as analyzed by SDS-PAGE

**Endotoxin Level** 

< 0.2 EU/  $\mu g$  of protein by gel clotting method

# **Biological Activity**

Measured by its binding ability in a functional ELISA. Immobilized human Galectin at 0.5  $\mu$ g/ml (100  $\mu$ l/well) can bind TIM-3, hFc, Mouse (Cat. No.: Z03401) with a linear range of 0.78-6.25  $\mu$ g/ml. Background was subtracted from data points before curve fitting.

**Expression System** 

**HEK 293** 

Formulation

Lyophilized from a 0.2  $\mu m$  filtered solution in PBS.

### Reconstitution

It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in  $ddH_2O$  or PBS up to  $100 \mu g/ml$ .

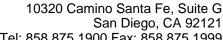
## **Storage & Stability**

Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

#### TIM-3 - Additional Information

## **Target Background**

TIM-3 (T cell immunoglobulin and mucin domain-3), also known as HAVCR2, is a 60 kDa member of the TIM family of immune regulating molecules that a family of transmembrane proteins expressed by various immune cells. TIM-3 is an inhibitory molecule that is induced following T cell activation. TIM-3 is expressed by exhausted T cells in the settings of chronic infection and cancer, and tumor-infiltrating T cells that co-express PD-1 and TIM-3 exhibit the most severe exhausted phenotype. Tumor-infiltrating dendritic cells also express TIM-3. TIM-3 expression on DCs was found to suppress innate immunity by reducing the immunogenicity of nucleic acids released by dying tumor cells. Research studies show that heterodimerization of TIM-3 with CEACAM-1 is







critical for the inhibitory function of TIM-3, and co-blockade of TIM-3 and CEACAM-1 enhanced antitumor responses in a mouse model of colorectal cancer. Its binding to Galectin-9 induces a range of immunosuppressive functions which enhance immune tolerance and inhibit anti-tumor immunity. TIM-3 ligation attenuates CD8<sup>+</sup> and Th1 cell responses and promotes the activity of Treg and myeloid derived suppressor cells. In addition, dendritic cell-expressed TIM-3 dampens inflammation by enabling the phagocytosis of apoptotic cells and the cross-presentation of apoptotic cell antigens.

#### **TIM-3 - Protein Information**

## **TIM-3 - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

TIM-3 - Images