

Recombinant Human TIM-3/HAVCR2/CD366 Protein

Catalog No.: RP00234 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	84868	Q8TDQ0

Tags

C-hFc&His

Synonyms

HAVCR2;CD366;HAVcr-2;KIM-3;TIM3;TIM D-3;TIMD3;Tim-3; CD366; KIM-3; SPTCL; TIMD3; Tim-3; TIMD-3; HAVcr-2

Product Information

Source	Purification
HEK293 cells	> 87% by SDS-PAGE.

Calculated MW	Observed MW
46.66 kDa	65-75 kDa

Endotoxin

< 0.1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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Background

HAVCR2 also known as TIM3 (T cell immunoglobulin and mucin domain-3), is a 60 kDa member of the TIM family of immune regulating molecules. TIMs are type I transmembrane glycoproteins with one Ig-like V-type domain and a Ser/Thr-rich mucin stalk region. Mature human TIM-3 consists of a 181 amino acid (aa) extracellular domain (ECD), a 21 aa transmembrane segment, and a 78 aa cytoplasmic tail. An alternatively spliced isoform is truncated within the mucin-like stalk. TIM-3 is up-regulated on several populations of activated myeloid cells (macrophage, monocyte, dendritic cell, microglia, mast cell) and T cells (Th1, CD8+, NK, Treg). 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+ 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. It also binds the alarmin HMGB1, thereby preventing the activation of TLRs in response to released tumor cell DNA. TIM-3 interactions with Galectin-9 can alternatively trigger immune stimulatory effects, such as the coactivation of NK cell cytotoxicity.

Basic Information

Description

Recombinant Human TIM-3/HAVCR2/CD366 Protein is produced by HEK293 expression system. The target protein is expressed with sequence (Ser22-Arg200) of human TIM-3 (Accession #NP_116171.3) fused with an Fc, 6xHis tag at the C-terminus.

Bio-Activity

Measured by its binding ability in a functional ELISA. Immobilized Recombinant Human Galectin9 at 2 μg/mL can bind recombinant human HAVCR2 with a linear range of 0.3-5 μg/mL.

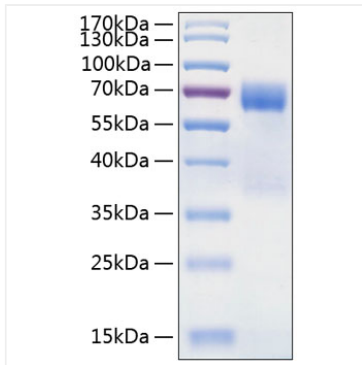
Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

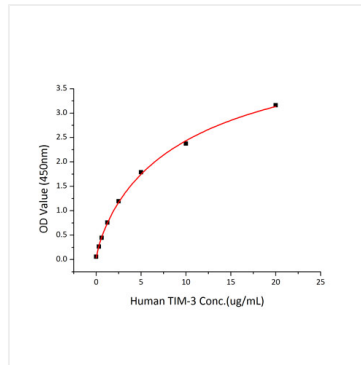
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human TIM-3/HAVCR2/CD366 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 60-80 kDa.



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