

## TIM-3/HAVCR2 Protein, Human (Biotinylated, HEK293, His-Avi)

Cat. No.:	HY-P78217
Synonyms:	CD366; TIM3; TIM-3; TIMD-3; TIM 3; FLJ14428; HAVCR2; KIM3
Species:	Human
Source:	HEK293
Accession:	Q8TDQ0 (S22-R200)
Gene ID:	84868
Molecular Weight:	45-50 kDa

### PROPERTIES

AA Sequence	<pre> S E V E Y R A E V G   Q N A Y L P C F Y T   P A A P G N L V P V   C W G K G A C P V F E C G N V V L R T D   E R D V N Y W T S R   Y W L N G D F R K G   D V S L T I E N V T L A D S G I Y C C R   I Q I P G I M N D E   K F N L K L V I K P   A K V T P A P T R Q R D F T A A F P R M   L T T R G H G P A E   T Q T L G S L P D I   N L T Q I S T L A N E L R D S R L A N D   L R D S G A T I R           </pre>
Biological Activity	Immobilized Anti-Tim-3 Antibody, hFc Tag at 1 µg/mL (100 µl/well) on the plate. Dose response curve for Biotinylated Human Tim-3, His Tag with the EC <sub>50</sub> of 15.8 ng/mL determined by ELISA.
Appearance	Lyophilized powder
Formulation	Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	The protein being described is involved in the innate immune response to intracellular pathogens. It interacts with LGALS9 on Mycobacterium tuberculosis-infected macrophages to stimulate antibactericidal activity and restrict bacterial growth. However, the role of this protein as a receptor for LGALS9 has been challenged. It also enhances CD8 <sup>+</sup> T-cell responses to acute infections and acts as a receptor for phosphatidylserine (PtSer), which is calcium-dependent. It may recognize PtSer
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on apoptotic cells and mediate their phagocytosis. The protein is expressed on T-cells and dendritic cells and promotes conjugation of apoptotic cells but not their engulfment. It positively regulates the innate immune response in dendritic cells and synergizes with Toll-like receptors to promote TNF-alpha secretion. In tumor-infiltrating dendritic cells, it suppresses nucleic acid-mediated innate immune response by interacting with HMGB1. It acts as a coreceptor on natural killer cells to enhance IFN-gamma production in response to LGALS9, but also suppresses NK cell-mediated cytotoxicity. It negatively regulates NK cell function in LPS-induced endotoxic shock. The protein interacts with various other proteins, including HMGB1, BAG6, PIK3R1, PIK3R2, FYN, VAV1, AKT1/2, LCP2, ZAP70, SYK, SH3BP2, SH2D2A, LCK, PLCG, and ILF3. Its interaction with ILF3 promotes ILF3 ubiquitination and degradation.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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