

## Overview

<b>Synonyms</b>	Hepatitis A virus cellular receptor 2; HAVcr-2; T-cell immunoglobulin and mucin domain-containing protein 3; TIMD-3; T-cell immunoglobulin mucin receptor 3; TIM-3; T-cell membrane protein 3
<b>Description</b>	<p>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+ 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.</p> <p>Recombinant Mouse TIM-3 produced in HEK293 cells is a polypeptide chain containing 178 amino acids with C-terminal 6xHis. A fully biologically active molecule, rmTIM-3 has a molecular mass of 45 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques.</p>
<b>Source</b>	HEK293
<b>Biological Activity</b>	<p>Measured by its binding ability in a functional ELISA. Immobilized human Galectin at 0.5 µg/mL (100 µL/well) can bind Biotin-TIM-3 His, Human(Cat.No.Z03402) with a linear range of 0.39-3.125 µg/mL when detected by Streptavidin-HRP. Background was subtracted from data points before curve fitting.</p>
<b>Sequence</b>	<p>Leu<sup>22</sup>-Ala<sup>193</sup> (Accession #: Q8VIM0-1), expressed with C-terminal 6xHis.</p> <pre> LENAYVFE VGKNAYLP CSYTLSTP GALVPMCW GKGFCPWS QCTNELLR TDERNVTY QKSSRYQL KGDLNKGD VSLI IKNV TLDDHGTY CCRIQFPG LMNDKKLE LKLDIKAA KVTPAQTA HGDSTTAS PRTLTER NGSETQTL VTLHNNNG TKISTWAD EIKDSGET IRTA </pre>

## Properties

<b>Molecular Weight</b>	45 kDa, observed by reducing SDS-PAGE.
<b>Purity</b>	> 97% as analyzed by reducing SDS-PAGE.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS.
<b>Reconstitution</b>	Reconstituted in ddH <sub>2</sub> O or PBS at 100 µg/ml.
<b>Endotoxin Level</b>	< 0.2 EU/µg, determined by LAL method.
<b>Storage</b>	Lyophilized recombinant <b>TIM-3</b> remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Mouse TIM-3 should be stable 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.

India Contact:

**Life Technologies (India) Pvt. Ltd.**

306, Aggarwal City Mall, Opposite M2K Pitampura,  
Delhi – 110034 (INDIA).

Mobile: +91-9810521400, Ph: +91-11-42208000

Email: [customerservice@lifetechindia.com](mailto:customerservice@lifetechindia.com)

Web: [www.lifetechindia.com](http://www.lifetechindia.com)