

## Recombinant Mouse Havcr2 Protein, hlgG-His-tagged

**Cat. No.** Havcr2-03M    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant mouse TIM-3 (20-193aa), fused to hlgG-His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.
<b>Species</b>	Mouse
<b>Source</b>	HEK293
<b>Description</b>	Cell surface receptor implicated in modulating innate and adaptive immune responses. Generally accepted to have an inhibiting function. Reports on stimulating functions suggest that the activity may be influenced by the cellular context and/or the respective ligand. Regulates macrophage activation. Inhibits T-helper type 1 lymphocyte (Th1)-mediated auto- and alloimmune responses and promotes immunological tolerance. In CD8+ cells attenuates TCR-induced signaling, specifically by blocking NF-kappaB and NFAT promoter activities resulting in the loss of IL-2 secretion. The function may implicate its association with LCK proposed to impair phosphorylation of TCR subunits. In contrast, shown to activate TCR-induced signaling in T-cells probably implicating ZAP70, LCP2, LCK and FYN. Expressed on Treg cells can inhibit Th17 cell responses. Receptor for LGALS9. Binding to LGALS9 is believed to result in suppression of T-cell responses; the resulting apoptosis of antigen-specific cells may implicate HAVCR2 phosphorylation and disruption of its association with BAG6. Binding to LGALS9 is proposed to be involved in innate immune response to intracellular pathogens. Expressed on Th1 cells interacts with LGALS9 expressed on Mycobacterium tuberculosis-infected macrophages to

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stimulate antibactericidal activity including IL-1 beta secretion and to restrict intracellular bacterial growth. However, the function as receptor for LGALS9 has been challenged. Also reported to enhance CD8+ T-cell responses to an acute infection such as by *Listeria monocytogenes*. Receptor for phosphatidylserine (PtSer); PtSer-binding is calcium-dependent. May recognize PtSer on apoptotic cells leading to their phagocytosis. Mediates the engulfment of apoptotic cells by dendritic cells. Expressed on T-cells, promotes conjugation but not engulfment of apoptotic cells. Expressed on dendritic cells (DCs) positively regulates innate immune response and in synergy with Toll-like receptors promotes secretion of TNF-alpha. In tumor-infiltrating DCs suppresses nucleic acid-mediated innate immune response by interaction with HMGB1 and interfering with nucleic acid-sensing and trafficking of nucleic acids to endosomes. Can enhance mast cell production of Th2 cytokines IL-4, IL-6 and IL-13. Expressed on natural killer (NK) cells acts as a coreceptor to enhance IFN-gamma production in response to LGALS9. In contrast, shown to suppress NK cell-mediated cytotoxicity. Negatively regulates NK cell function in LPS-induced endotoxic shock.

<b>Form</b>	Liquid
<b>Molecular Mass</b>	46.3kDa (413aa)
<b>AA Sequence</b>	RSLENAYVFEVVGKNAYLPCSYTLSTPGALVPMCWVGKGFPCWSQCTNELLRTDERN VTYQKSSRYQLKGDNLKGDVSLIKNVTLDDHGTGCCRIQFPGLMNDKKLELKLDIKA AKVTPAQT AHGDSTTASPRTLTTERNGSETQLVTLHNNNGTKISTWADEIKDSGETI RTA
<b>Endotoxin</b>	< 1 EU/μg of protein (determined by LAL method)
<b>Purity</b>	> 95% by SDS-PAGE

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<b>Applications</b>	SDS-PAGE
<b>Storage</b>	Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. Avoid repeated freezing and thawing cycles.
<b>Concentration</b>	0.5 mg/mL (determined by Absorbance at 280nm)
<b>Storage Buffer</b>	In Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

## GENE INFORMATION

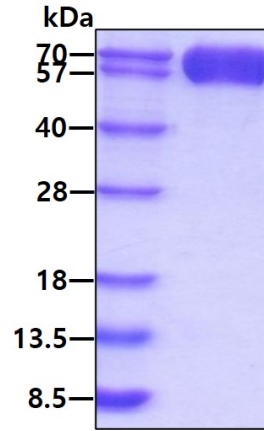
<b>Gene Name</b>	Havcr2 hepatitis A virus cellular receptor 2 [ <i>Mus musculus</i> (house mouse) ]
<b>Official Symbol</b>	Havcr2
<b>Synonyms</b>	Havcr2; hepatitis A virus cellular receptor 2; Tim; TIM-; Tim3; Timd; TIM-3; Timd3; hepatitis A virus cellular receptor 2 homolog; HAVcr-2; T-cell immunoglobulin and mucin domain containing 3; T-cell immunoglobulin and mucin domain-containing protein 3; T-cell immunoglobulin mucin receptor 3; T-cell membrane protein 3; TIMD-3
<b>Gene ID</b>	171285
<b>mRNA Refseq</b>	NM_134250
<b>Protein Refseq</b>	NP_599011
<b>UniProt ID</b>	Q8VIM0

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**SDS-PAGE**



3  $\mu$ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

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