

Active Recombinant Human HAVCR2 protein, His/Avi-tagged, Biotinylated

Cat. No. HAVCR2-051H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Biotinylated Recombinant Human HAVCR2(Ser22-Arg200) protein, fused to His/Avi tag at the C-terminus, was expressed in CHO cells .
Species	Human
Source	CHO
ProteinLength	Ser22-Arg200
Description	HAVCR2 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 (1, 2). 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 (3). An alternatively spliced isoform is truncated within the mucin-like stalk. Within the ECD, human TIM-3 shares 58% aa sequence identity with mouse and rat TIM-3. 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) (3-10). Its binding to Galectin-9 induces a range of immunosuppressive functions which enhance immune tolerance and inhibit anti-tumor immunity (11). TIM-3 ligation attenuates CD8+ and Th1 cell responses (11-13) and promotes the activity of Treg and myeloid derived suppressor cells (8, 11, 13, 14). In addition, dendritic cell-expressed TIM-3 dampens inflammation by enabling the phagocytosis of apoptotic cells and the cross-presentation of

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apoptotic cell antigens (4). It also binds the alarmin HMGB1, thereby preventing the activation of TLRs in response to released tumor cell DNA (7). TIM-3 interactions with Galectin-9 can alternatively trigger immune stimulatory effects, such as the coactivation of NK cell cytotoxicity (10).

Predicted N Terminal	Ser22
Form	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
Bio-activity	Measured by its binding ability in a functional ELISA. When Recombinant Human Galectin9 is immobilized at 1 µg/mL (100 µL/well), the concentration that produces 50% of the optimal binding response is 0.1-0.8 µg/mL.
Molecular Mass	37-50 kDa, under reducing conditions
Endotoxin	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Applications	Bioactivity
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 200 µg/mL in PBS.
Conjugation	Biotin

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GENE INFORMATION

Gene Name HAVCR2 hepatitis A virus cellular receptor 2 [Homo sapiens]

Official Symbol HAVCR2

Synonyms HAVCR2; hepatitis A virus cellular receptor 2; FLJ14428; Tim 3; TIM3; TIMD3; kidney injury molecule-3; T-cell membrane protein 3; T cell immunoglobulin mucin 3; T cell immunoglobulin mucin-3; T-cell immunoglobulin and mucin domain-containing protein 3; KIM-3; Tim-3; TIMD-3; HAVcr-2;

Gene ID 84868

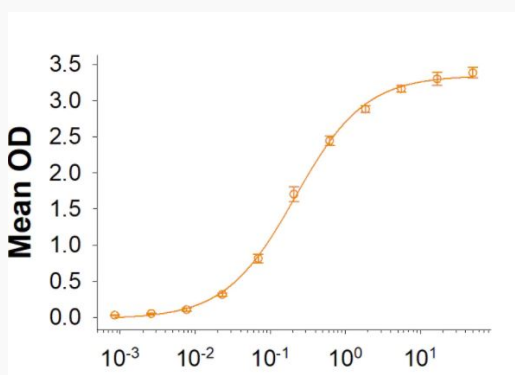
mRNA Refseq NM_032782

Protein Refseq NP_116171

MIM 606652

UniProt ID Q8TDQ0

Binding Activity

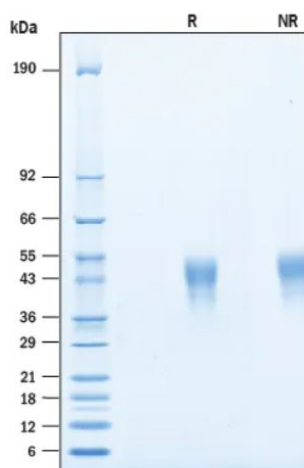


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SDS-PAGE



2 µg/lane Protein was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining.

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