

Recombinant Mouse HAVR1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51604

Size: 10ug, 100ug

Protein Name: Hepatitis A virus cellular receptor 1 homolog (HAVcr-1) (Kidney injury molecule 1) (KIM-1) (T cell immunoglobulin and mucin domain-containing protein 1) (TIMD-1) (T cell membrane protein 1) (T-cell immunoglobulin mucin receptor 1) (TIM-1) (CD antigen CD365)

Synonym: Havcr1, Kim1, Tim1, Timd1

UniProt ID: Q5QNS5

UniProt Link: www.uniprot.org/uniprotkb/Q5QNS5/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 305 AA

Molecular Weight: 33 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MNQIQVFISGLILLPLGAVDSYVEVKGVVGHVPVTLPCITYSTYRGITTCWGRGQCPSSACQNTLIWTN
GHRVTYQKSSRYNLKGHISEGDVSLTIENSVESDSGLYCCRVEIPGWFNDQKVTFSLQVKPEIPTRP
PTRPTTTRPTATGRPTTISTRSTHVPTSIRVSTSTPPTSTHTWTHKPEPTTFCPHETTAEVTGIPSHTP
TDWNGTVTSSGDTWSNHTEAIPPGKPKQKNPTKGFYVGICIAALLLLLLLVSTVAITRYILMKRKSASLSV
VAFRVSKIEALQNAAVVHSRAEDNIYIVEDRP

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Hepatitis A virus cellular receptor 1 homolog (HAVcr-1) (Kidney injury molecule 1) (KIM-1) (T cell immunoglobulin and mucin domain-containing protein 1) (TIMD-1) (T cell membrane protein 1) (T-cell immunoglobulin mucin receptor 1) (TIM-1) (CD antigen CD365) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Phosphatidylserine receptor that plays an important functional role in regulatory B-cell homeostasis including generation, expansion and suppressor functions (PubMed:21821911, PubMed:25645598, PubMed:32668241). Involved in efferocytosis, the process by which apoptotic cells are removed, by binding to phosphatidylserine present on apoptotic cells and promoting their engulfment (By similarity). Confers phagocytic ability on injured kidney epithelial cells, allowing them to bind to and internalize apoptotic bodies and necrotic debris following kidney injury (By similarity). The ectodomain binds to the surface of apoptotic kidney epithelial cells via phosphatidylserine and oxidized phospholipids exposed on the cell membrane of the apoptotic cells (By similarity). HAVCR1-expressing cells are also capable of phagocytosing Gram-negative and Gram-positive bacteria (By similarity). As P-selectin/SELPLG ligand, plays a specialized role in activated but not naive T-cell trafficking during inflammatory responses (PubMed:24703780). Controls thereby T-cell accumulation in the inflamed central nervous system (CNS) and the induction of autoimmune disease (PubMed:24703780). Acts as a regulator of T-cell proliferation (PubMed:15793576). Also regulates expression of various anti-inflammatory cytokines and co-inhibitory ligands including IL10 (PubMed:25582854, PubMed:25645598).

Subcellular Localization: Cell membrane ; Single-pass type I membrane protein . Cell projection, phagocytic cup . Cytoplasmic vesicle, phagosome .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.