

# Canine KIM-1 / TIM1 / HAVCR1 Protein (Fc Tag)

Catalog Number: 70001-D04H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

HAVCR1

### Protein Construction:

A DNA sequence encoding the extracellular domain of canine HAVCR1 (XP\_854888.1) (Tyr21-Ser160) was fused with the Fc region of mouse IgG at the N-terminus.

**Source:** Canine

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 90 % as determined by SDS-PAGE.

### Endotoxin:

< 1.0 EU per µg protein as determined by the LAL method.

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Asp

### Molecular Mass:

The recombinant canine HAVCR1 consists of 373 amino acids and has a calculated molecular mass of 41.8 kDa.

### Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

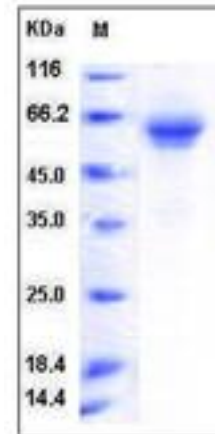
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

HAV cellular receptor 1 (HAVCR1), also known as Kidney injury molecule 1 (KIM-1) and T cell immunoglobulin mucin 1 (TIM-1), is a type I integral membrane glycoprotein. KIM-1 protein is widely expressed with highest levels in kidney and testis. It has been shown to play a major role as a human susceptibility gene for asthma, allergy and autoimmunity. IgA1lambda is a specific ligand of KIM-1 protein and that their association has a synergistic effect in virus-receptor interactions. KIM-1 involves in the pathogenesis of acute kidney injury. It had been confirmed that KIM-1 is a human urinary renal dysfunction biomarker. Moreover, KIM-1 protein is a novel regulatory molecule of flow-induced calcium signaling.

## References

1. Tami C, *et al.* (2007) Immunoglobulin A (IgA) is a natural ligand of hepatitis A virus cellular receptor 1 (HAVCR1), and the association of IgA with HAVCR1 enhances virus-receptor interactions. *J Virol.* 81(7): 3437-46.
2. Rees AJ, *et al.* (2008) Kim-1/Tim-1: from biomarker to therapeutic target? *Nephrol Dial Transplant.* 23(11): 3394-6.
3. Chaturvedi S, *et al.* (2009) Assay validation for KIM-1: human urinary renal dysfunction biomarker. *Int J Biol Sci.* 5(2): 128-34.

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For US Customer: Fax: 267-657-0217 • Tel: 215-583-7898

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