Rat KIM-1 / TIM1 / HACVR1 Protein (His & Fc Tag)

Catalog Number: **80003-R16H**

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Biological Solution Specialist

General Information

Gene Name Synonym:

CD365; HAVCR; HAVCR-1; KIM-1; KIM1; TIM; TIM-1; TIM1; TIMD-1; TIMD1; AI503787; KIM-1; TIM-1; Tim1; Timd1

Protein Construction:

A DNA sequence encoding the extracellular domain of rat HAVCR1 (NP_775172.1) (Ser 18-Val 238) was fused with a polyhistidine tag at the C-terminus and the Fc region of human IgG1 at the N-terminus.

Source: Rat

Expression Host: Human Cells

QC Testing

Purity: > 93 % as determined by SDS-PAGE

Endotoxin:

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

Stability:

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

Predicted N terminal: Glu 20

Molecular Mass:

The recombinant rat HAVCR1/Fc is a disulfide-linked homodimer. The reduced monomer comprises 468 amino acids and predicts a molecular mass of 52.6 kDa. As a result of glycosylation, the apparent molecular mass of the rat HAVCR1/Fc monomer is approximately 90-100 kDa in SDS-PAGE under reducing conditions.

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:

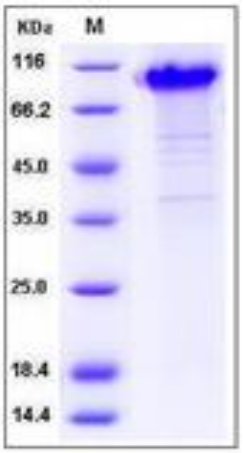
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Human HAV cellular receptor 1 (HAVCR1), also known as Kidney injury molecule 1 (KIM-1) and T cell immunoglobulinmucin 1 (TIM-1), is a type â… 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.