Data Sheet (Cat.No.TMPK-01139)

TargetMol

TIM-1/KIM-1/HAVCR1 Protein, Human, Recombinant (aa 21-295, His)

General Information

Synonyms:	KIM1;TIM-1;HAVCR-1;KIM-1;TIM;TIM1;TIMD1;HAVCR;CD365;TIMD-1;HAVCR1
Protein Construction:	Ser21-Gly295
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q96D42
Molecular Weight:	30.58 kDa (predicted). Due to glycosylation, the protein migrates to 95-115 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Kidney injury molecule 1 (KIM-1, also known as TIM-1) is markedly upregulated in the proximal tubule after injury and is maladaptive when chronically expressed. KIM-1-mediated epithelial cell phagocytosis of apoptotic cells protects the kidney after acute injury by downregulating innate immunity and inflammation.

Reference

Yang L, et al. KIM-1-mediated phagocytosis reduces acute injury to the kidney. J Clin Invest. 2015 Apr;125(4):1620-36. doi: 10.1172/JCI75417. Epub 2015 Mar 9. PMID: 25751064; PMCID: PMC4396492.

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