Data Sheet (Cat.No.TMPK-01272)

TargetMol

TIM-4/TIMD4 Protein, Cynomolgus, Recombinant (His)

General Information

Synonyms:	TIMD4;TIMD-4;TIM-4
Protein Construction:	Glu25-Gln305
Species:	Cynomolgus
Expression Host:	HEK293 Cells
Accession:	XP_005558436.2
Molecular Weight:	31.55 kDa (predicted). Due to glycosylation, the protein migrates to 70-80 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

Tim4 is a transmembrane protein as the phosphatidylserine (PS) receptor, known as T cell immunoglobulin and mucin domain containing protein-4. It is expressed highly in macrophages, and macrophage Tim-4 inhibits inflammation under various conditions of immune activation.

Reference

Liu W, et al. Tim-4 Inhibits NLRP3 Inflammasome via the LKB1/AMPKα Pathway in Macrophages. J Immunol. 2019 Aug 15;203(4):990-1000. doi: 10.4049/jimmunol.1900117. Epub 2019 Jul PMID: 31263038.

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