Data Sheet (Cat.No.TMPK-00189)

TargetMol

TIM-3/KIM-3/HAVCR2 Protein, Human, Recombinant (His & Avi), Biotinylated

General Information

Synonyms: TIM 3;HAVCR2;TIMD-3;TIM3;KIM3;CD366;TIM-3; FLJ14428

Protein Construction: Ser22-Arg200

Species: Human

Expression Host: HEK293 Cells

Accession: Q8TDQ0-1

Molecular Weight: 22.8 kDa (predicted). Due to glycosylation, the protein migrates to 45-50 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity: Immobilized Anti-Tim-3 Antibody, hFc Tag at 1μg/ml (100μl/well) on the plate. Dose response curve for Biotinylated Human Tim-3, His Tag with the EC50 of 13.2ng/ml determined by ELISA.

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

Hepatitis A virus cellular receptor 2 (HAVCR2), also known as T-cell immunoglobulin and mucin-domain containing-3 (TIM-3), is a protein that in humans is encoded by the HAVCR2 gene.TIM3 is an immune checkpoint and together with other inhibitory receptors including programmed cell death protein 1 (PD-1) and lymphocyte activation gene 3 protein (LAG3) mediate the CD8 T-cell exhaustion. TIM3 has also been shown as a CD4 Th1-

specific cell surface protein that regulates macrophage activation and enhances the severity of experimental autoimmune encephalomyelitis in mice.

Reference

Wenwen D, et al. TIM-3 as a Target for Cancer Immunotherapy and Mechanisms of Action[J]. International Journal of Molecular Sciences, 2017, 18(3):645-.