Data Sheet (Cat.No.TMPK-00875)

TargetMol

CD96 Protein, Human, Recombinant (His & Avi), Biotinylated

General Information

Synonyms:	TACTILE;CD96;DKFZp667E2122;CD96 molecule
Protein Construction:	Val22-Met503
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P40200-2
Molecular Weight:	59.1 kDa (predicted). Due to glycosylation, the protein migrates to 115-140 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Immobilized Anti-CD96 Antibody, hFc Tag at 1μg/ml (100μl/well) on the plate. Dose response curve for Biotinylated Human CD96, His Tag with the EC50 of 0.46μg/ml determined by ELISA.
Purity:	> 95% as determined by Tris-Bis PAGE
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

The receptors CD96 and TIGIT are expressed on the surface of T and natural killer (NK) cells, and recent studies suggest both play important inhibitory roles in immune function. CD96 has been shown to modulate immune cell activity in mice, with Cd96-/- mice displaying hypersensitive NK-cell responses to immune challenge and significant tumor resistance. The counterbalance between the putative inhibitory CD96 and TIGIT receptors and the activating receptor, CD226, offers unique strategies for immuno-oncology drug development.

Reference

Blake SJ, et al. Molecular Pathways: Targeting CD96 and TIGIT for Cancer Immunotherapy. Clin Cancer Res. 2016 Nov 1;22(21):5183-5188. doi: 10.1158/1078-0432.CCR-16-0933. Epub 2016 Sep 12. PMID: 27620276.

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