Data Sheet (Cat.No.TMPY-06212)

TargetMol

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

General Information

Synonyms:	CD96 molecule
Protein Construction:	A DNA sequence encoding the cynomolgus CD96 (A0A2K5TWV6-1) (Met1-Met503) was expressed with a C-terminal polyhistidine tag followed by an AVI tag. The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed. Predicted N terminal: Val 22
Species:	Cynomolgus
Expression Host:	HEK293 Cells
Accession:	A0A2K5TWV6-1
Molecular Weight:	56.6 kDa (predicted); 128.3 kDa (reducing conditions)

QC Testing

Biological Activity:	Measured by its ability to bind Human CD155/PVR hFc in functional ELISA.
Purity:	> 90 % as determined by SDS-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, pH7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

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 cluster of differentiation (CD) system is commonly used as cell markers in Immunophenotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules associating with the immune function of the cell. There are more than 320 CD unique clusters and subclusters have been identified. Some of the

CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alter the behavior of the cell. Some CD proteins do not take part in cell signal process but have other functions such as cell adhesion. The CD155 ligand CD96 is a member of the Ig superfamily. It's an immunoglobulin-like protein tentatively allocated to the repertoire of human NK receptors. NK cells recognize poliovirus receptor (PVR), a nectins and nectin-like protein family member serve to mediate cell-cell adhesion, cell migration, with the presence of an additional receptor, CD96. CD96 promotes NK cell adhesion to target cells expressing PVR, stimulates cytotoxicity of activated NK cells, and mediates acquisition of PVR from target cells. The effect the cells with mutated CD96 protein lost adhesion and growth activities indicates that CD96 mutations may cause a form of the C syndrome by interfering with cell adhesion and growth.Cancer ImmunotherapyImmune CheckpointImmunotherapyTargeted Therapy

Reference

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