Data Sheet (Cat.No.TMPY-02782)

TargetMol

CD63 Protein, Sus scrofa (Pig), Recombinant (hFc)

General Information

Synonyms:	CD63 molecule
Protein Construction:	A DNA sequence encoding the Sus scrofa (Pig) CD63 (XP_003355519.1) (Arg 108-Phe 204) was fused with the human IgG1 Fc region at the N-terminus. Predicted N terminal: Gln 22
Species:	Sus scrofa (Pig)
Expression Host:	HEK293 Cells
Accession:	XP_003355519.1
Molecular Weight:	38.2 kDa (predicted); 48 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity testing is in progress. 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 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, pH 7.4. 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 which 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. Cluster of differentiation 63 (CD63) is a member of the CD family and the transmembrane 4 superfamily, also known as the tetraspanin family. CD63 is a cell surface glycoprotein characterized by the presence of four hydrophobic domains. CD63 had functions in mediating signal transduction processes and then regulate a variety of cellular processes such as cell proliferation, activation and motility. It has been reported that CD63 protein associated with tumor progression and served as a blood platelet activation marker and the deficiency of this protein may be associated with Hermansky-Pudlak syndrome.

Reference

Zola H,et al.(2007) CD molecules 2006-human cell differentiation molecules. J Immunol Methods. 318 (1-2): 1-5.
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Metzelaar MJ,et al.(1991) CD63 antigen, A novel lysosomal membrane glycoprotein, cloned by a screening procedure for intracellular antigens in eukaryotic cells. The journal of biological chemistry. 266: 3239-45.