Data Sheet (Cat.No.TMPY-02005U)

TargetMol

Mucin-1/MUC1 Protein, Human, Recombinant (Isoform Y-LSP, hFc) V2

General Information

Synonyms:	EMA;ADMCKD;MAM6;H23AG;MUC-1/SEC;MUC-1;ADMCKD1;MCKD1;CA15-3;CD227;PEMT;MCD;KL-6;Mucin 1;mucin 1, cell surface associated;PEM;MCKD;MUC1/ZD;PUM;MUC-1/X
Protein Construction:	Ala23-Gly167
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P15941-11
Molecular Weight:	42.3 kDa (Predicted); 45-88 kDa (Reducing conditions)

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it.
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 0.2 μm filtered solution of PBS, pH 7.4.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized 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:

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

Mucin-1, is a membrane-bound protein that is a member of the mucin family. Mucins are O-glycosylated proteins that play an essential role in forming protective mucous barriers on epithelial surfaces. These proteins also play a role in intracellular signaling. This protein is expressed on the apical surface of epithelial cells that line the mucosal surfaces of many different tissues including lung, breast stomach and pancreas. MUC-1 exclusively located in the apical domain of the plasma membrane of highly polarized epithelial cells. MUC-1 can act both as an adhesion and an anti-adhesion protein. This protein may provide a protective layer on epithelial cells against bacterial and enzyme attack. MUC-1 participated in modulates signaling in ERK, SRC and NF-kappa-B pathways. In

activated T-cells, MUC-1 influences directly or indirectly the Ras/MAPK pathway. MUC-1 promotes tumor progression and regulates TP53-mediated transcription and determines cell fate in the genotoxic stress response.

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