

Recombinant Human Mucin-1 / MUC-1 Protein**Cat.NO.: TP07043**

3th Edition

Synonyms:

ADMCKD;ADMCKD1;CA15-3;CD227;EMA;H23AG;KL-6;MAM6;MCD;MCKD;MCKD1;MUC-1;MUC-1/SEC;MUC-1/X;MUC1/ZD;Mucin 1;PEM;PEMT;PUM

Description:Mucin 1, cell surface associated (MUC1) or polymorphic epithelial mucin (PEM) 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/CC1/CD227 Exclusively located in the apical domain of the plasma membrane of highly polarized epithelial cells. After endocytosis, internalized and recycled to the cell membrane. This protein is proteolytically cleaved into alpha and beta subunits that form a heterodimeric complex. The N-terminal alpha subunit functions in cell-adhesion and the C-terminal beta subunit is involved in cell signaling. Overexpression, aberrant intracellular localization, and changes in glycosylation of this protein have been associated with carcinomas. The alpha subunit has cell adhesive properties. MUC-1/CC1/CD227 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. The beta subunit contains a C-terminal domain which is involved in cell signaling, through phosphorylations and protein-protein interactions. MUC-1/CC1/CD227 participated in modulates signaling in ERK, SRC and NF-kappa-B pathways. In activated T-cells, MUC-1/CC1/CD227 influences directly or indirectly the Ras/MAPK pathway. MUC-1/CC1/CD227 Promotes tumor progression and regulates TP53-mediated transcription and determines cell fate in the genotoxic stress response. Binds, together with KLF4, the PE21 promoter element of TP53 and represses TP53 activity. Immune Checkpoint Immunotherapy Cancer Immunotherapy Targeted Therapy

Form:PBS**Molecular Weight:**15.4 kDa**Sequences:**Met 1-Gly 167**Purity:**> 95% by HPLC**Concentration:****Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.