

MUC-1 recombinant protein

MUC-1 Protein, Human, Recombinant (ECD, His Tag), HPLC-verified

CATALOG #
AAA259215

HOST
HEK293 Cells

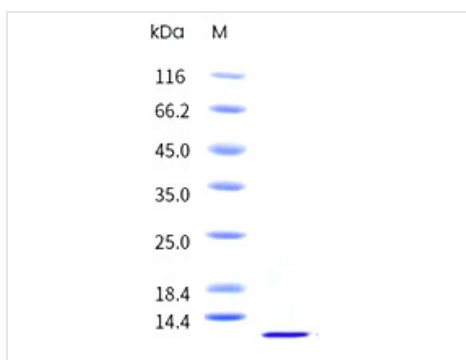
PRODUCT SYNONYMS

MUC-1; MUC-1 Protein; Human; Recombinant (ECD; His Tag); HPLC-verified; mucin 1; cell surface associated; ADMCKD Protein; ADMCKD1 Protein; CA15-3 Protein; CD227 Protein; EMA Protein; H23AG Protein; KL-6 Protein; MAM6 Protein; MCD Protein; MCKD Protein; MCKD1 Protein; MUC-1/SEC Protein; MUC-1/X Protein; MUC1/ZD Protein; Mucin 1 Protein; PEM Protein; PEMT Protein; PUM Protein; MUC-1 recombinant protein

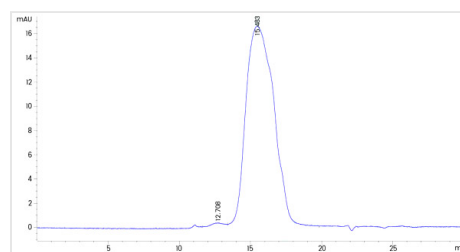
PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>= 95% as determined by SDS-PAGE. = 95% as determined by SEC-HPLC.
Form/Format	Lyophilized from sterile PBS, pH 7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Species	Human
Predicted N Terminal	Ser 24
Endotoxin	<1.0 EU per ug protein as determined by the LAL method.
Protein Construction	A DNA sequence encoding the Human MUC1 (P15941-8)(Met1-Gly173) was expressed with a polyhistidine tag at the C-terminus.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

IMAGES



Application Data



Application Data

ADDITIONAL INFORMATION

Related Product Information for MUC-1 recombinant protein	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 the 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.
References	Brayman M, et al. (2004) MUC1: a multifunctional cell surface component of reproductive tissue epithelia. Reprod Biol Endocrinol 2: 4.Schroeder J A, et al. (2001) Transgenic MUC1 interacts with epidermal growth factor receptor and correlates with mitogen-activated protein kinase activation in the mouse mammary gland. J Biol Chem. 276 (16): 13057-64.Li Y, et al. (2001) The epidermal growth factor receptor regulates interaction of the human DF3/MUC1 carcinoma antigen with c-Src and beta-catenin. J Biol Chem. 276 (38): 35239-42.

NCBI AND UNIPROT INFORMATION

NCBI GI #	67189007
NCBI GeneID	4582
NCBI Accession #	NP_001018016.1
NCBI GenBank Nucleotide #	NM_001018016.2
UniProt Accession #	P15941; P13931; P15942; P17626; Q0VAP6; Q14128; Q14876; Q16437; Q16442; Q16615; B1AVQ8; B1AVR0
Molecular Weight	122,102 Da
NCBI Official Full Name	mucin-1 isoform 2
NCBI Official Synonym Full Names	mucin 1, cell surface associated
NCBI Official Symbol	MUC1
NCBI Official Synonym Symbols	EMA; PEM; PUM; KL-6; MAM6; PEMT; CD227; H23AG; MUC-1; CA 15-3; MUC-1/X; MUC1/ZD; MUC-1/SEC
NCBI Protein Information	mucin-1; episialin; DF3 antigen; H23 antigen; cancer antigen 15-3; krebs von den Lungen-6; mucin 1, transmembrane; tumor-associated mucin; carcinoma-associated mucin; polymorphic epithelial mucin; peanut-reactive urinary mucin; tumor associated epithelial
UniProt Protein Name	Mucin-1
UniProt Gene Name	MUC1
UniProt Synonym Gene Names	PUM; MUC-1; CA 15-3; KL-6; PUM; PEM; EMA; MUC1-NT; MUC1-alpha; MUC1-beta
UniProt Entry Name	MUC1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.