

Mucin-1/MUC1 Protein, Human (HEK293, Fc)

Cat. No.:	HY-P70301
Synonyms:	rHuMucin-1, Fc; Mucin-1; MUC-1; Breast carcinoma-associated antigen DF3; Cancer antigen 15-3; CA 15-3; Carcinoma-associated mucin; Episialin; H23AG; Krebs von den Lungen-6; KL-6; PEMT; Peanut-reactive urinary mucin; PUM; Polymorphic epithelial mucin; PEM; Tumor-associated epithelial membrane antigen; EMA; Tumor-associated mucin; CD227; MUC1
Species:	Human
Source:	HEK293
Accession:	P15941-11 (A23-G167)
Gene ID:	4582
Molecular Weight:	45-88 kDa

PROPERTIES

AA Sequence	<p> A P K P A T V V T G S G H A S S T P G G E K E T S A T Q R S S V P S S T E K N A F N S S L E D P S T D Y Y Q E L Q R D I S E M F L Q I Y K Q G G F L G L S N I K F R P G S V V V Q L T L A F R E G T I N V H D V E T Q F N Q Y K T E A A S R Y N L T I S D V S V S D V P F P F S A Q S G A G V P G </p>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>The Mucin-1/MUC1 protein exhibits diverse functional roles: the alpha subunit possesses cell adhesive properties and functions as both an adhesion and an anti-adhesion protein, potentially forming a protective layer on epithelial cells against bacterial and enzyme attacks. Simultaneously, the beta subunit, with its C-terminal domain, engages in cell signaling through phosphorylations and protein-protein interactions. Mucin-1/MUC1 modulates signaling in ERK, SRC, and NF-kappa-B pathways, influencing the Ras/MAPK pathway in activated T-cells. Additionally, it plays a role in promoting tumor progression, regulating TP53-mediated transcription, and determining cell fate in the genotoxic stress response. Notably, in conjunction with KLF4, Mucin-1/MUC1 binds to the PE21 promoter element of TP53, thereby repressing TP53 activity and</p>
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contributing to the intricate network of cellular functions.

Caution: Product has not been fully validated for medical applications. For research use only.

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