

Product Data Sheet

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

Cat. No.: HY-P72399

Synonyms: MUC-1; CA 15-3; Carcinoma-associated mucin; Episialin; H23AG; Krebs von den Lungen-6; KL-6;

PEMT; PUM; PEM; EMA; CD227; MUC1

Species: Human Source: **HEK293**

Accession: P15941-11 (P24-G167)

Gene ID: 4582

Molecular Weight: 55-75 kDa

PROPERTIES

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AA	~	മവ	11	Δ	n	~	Δ

PKPATVVTGS GHASSTPGGE KETSATQRSS VPSSTEKNAF NSSLEDPSTD YYQELQRDIS EMFLQIYKQG GFLGLSNIKF RPGSVVVQLT LAFREGTINV HDVETQFNQY KTEAASRYNL

TISDVSVSDV PFPFSAQSGA GVPG

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.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH₂O. 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

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 contributing to the intricate network of cellular functions.

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Screening Libraries

Proteins

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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