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MUC1
Recombinant Human Mucin-1 / CA 15-3 / CD227 (mFc Tag)

Catalog No.	CRH667A-Fc2 CRH667B-Fc2	**Quantity:**	50 µg 100 µg
Alternate Names:	Mucin-1, MUC-1, Breast carcinoma-associated antigen DF3, Cancer antigen 15-3, CA 15 -3, CD227		
Description:	Mucin 1, cell surface associated (MUC1) is a membrane-bound protein member of the mucin family. Mucins are O-glycosylated proteins that play an essential role in forming protective mucous barriers on epithelial tissues including lung, breast stomach and pancreas. MUC-1/CA 15-3 is 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/CA 15-3 acts 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/CA 15-3 modulates signaling in ERK, SRC and NF-kappa-B pathways. In activated T-cells, MUC-1/CA 15-3 influences directly or indirectly the Ras/MAPK pathway. MUC-1/CA 15-3 promotes tumor progression and regulates TP53-mediated transcription and determines cell fate in the genotoxic stress response.		
UniProt ID:	P15941-2		
Accession Number:	NP_001018016.1		
Protein Construction:	A DNA sequence encoding the human MUC1 isoform 2 extracellular domain (Met1-Gly167) was fused with the Fc region of mouse IgG at the C-terminus.		
Source:	HEK293 Cells		
Formulation:	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.		
Molecular Weight:	The rhMUC1/Fc is a disulfide-linked homodimer. The monomer (369 aa) after removal the signal peptide and has a predicted MW of 41 kDa, migrates at 50.2kDa & 34.8 kDa in SDS-PAGE reducing conditions, as a result of glycosylation.		
Purity:	> 90 % as determined by SDS-PAGE.		
Endotoxin Level:	< 1.0 EU per µg of the protein as determined by the LAL method		
Biological Activity:	Testing in progress		

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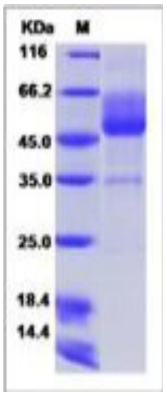
Predicted N-terminal: Ser 33

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial.
DO NOT VORTEX. Allow several minutes for complete reconstitution.

Storage & Stability: Stable for up to 1 year from date of receipt at -20°C to -80°C
After reconstitution, store working aliquots at -20°C to -80°C.
Avoid repeated freeze-thaw cycles.

SDS-PAGE



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