Catalog # MU1-H52H9



### Synonym

Mucin 1,MUC1,CD227,EMA,H23AG,KL-6,MAM6,MUC-1,SEC,MUC-1,X,MUC1,ZD,PEM,PEMT,PUM,CA15-3,Episialin

#### Source

Human Mucin-1 (890-1158), His Tag(MU1-H52H9) is expressed from human 293 cells (HEK293). It contains AA Ser 890 - Gly 1158 (Accession # <u>P15941-1</u>).

Predicted N-terminus: Ser 890 (partial α chain) & Ser 1098 (partial β chain)

### **Molecular Characterization**

Mucin-1(Ser 890 - Gly 1158) P15941-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus. The mature form of Mucin-1 is a non-covalent heterodimeric complex with the proteolytically cleaved partial  $\alpha$  and partial  $\beta$  chain. Each partial  $\alpha$  and partial  $\beta$  chain has a calculated MW of 21.3 kDa (partial  $\alpha$  chain) and 8.4 kDa (partial  $\beta$  chain). The protein migrates as 45-80 kDa (partial  $\alpha$  and partial  $\beta$  chain) and 10 kDa (partial  $\beta$  chain) under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Endotoxin

Less than 1.0 EU per  $\mu g$  by the LAL method.

## Purity

>90% as determined by SDS-PAGE.

#### Formulation

Lyophilized from 0.22  $\mu$ m filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

#### Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

# **SDS-PAGE**

kDa	Μ	R
116.0		
66.2		
45.0		
35.0	-	
25.0	_	
18.4		
14.4		

Human Mucin-1 (890-1158), His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

#### **Bioactivity-ELISA**

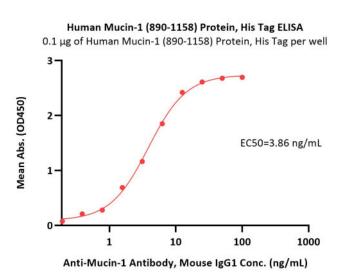


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Immobilized Human Mucin-1 / MUC-1 (890-1158) Protein, His Tag (Cat. No. MU1-H52H9) at 1 µg/mL (100 µL/well) can bind Anti-Mucin-1 Antibody, Mouse IgG1 with a linear range of 0.4-6 ng/mL (QC tested).

### Background

Membrane mucins have several functions in epithelial cells including cytoprotection, extravasation during metastases, maintenance of luminal structure, and signal transduction. MUC17, contains an extended, repetitive extracellular glycosylation domain and a carboxyl terminus with two EGF-like domains, a SEA module domain, a transmembrane domain, and a cytoplasmic domain with potential serine and tyrosine phosphorylation sites. Interacts via its C-terminus with PDZK1 and this interaction appears important for proper localization. Probably plays a role in maintaining homeostasis on mucosal surfaces.

# **Clinical and Translational Updates**



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