

## **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 (1036-1155), His Tag(MU1-H52H5) is expressed from human 293 cells (HEK293). It contains AA Leu 1036 - Gly 1155 (Accession # P15941-1).

Predicted N-terminus: Leu 1036 (partial α chain) & Ser 1098 (partial β chain)

## **Molecular Characterization**

Mucin-1(Leu 1036 - Gly 1155) 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 7.2 kDa (partial  $\alpha$  chain) and 8.2 kDa (partial  $\beta$  chain). The protein migrates as 8 kDa (partial  $\alpha$  chain) and 10-11 kDa (partial  $\beta$  chain) when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

#### **Endotoxin**

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

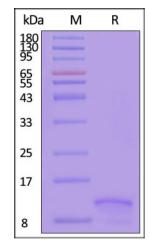
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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**

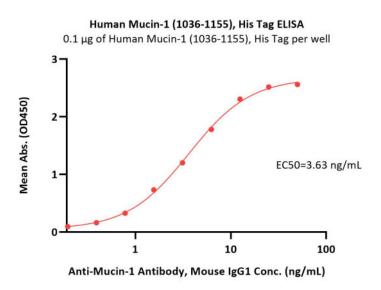


Human Mucin-1 (1036-1155), His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

# **Bioactivity-ELISA**

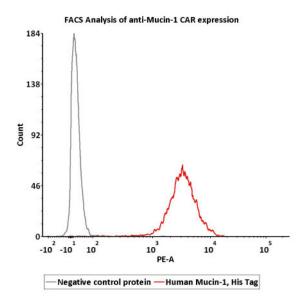






Immobilized Human Mucin-1 (1036-1155), His Tag (Cat. No. MU1-H52H5) at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Anti-Mucin-1 Antibody, Mouse IgG1 with a linear range of 0.2-6 ng/mL (QC tested).

# **Bioactivity-FACS**



2e5 of anti-Mucin-1 CAR-293 were stained with 100  $\mu$ L of 0.1  $\mu$ g/mL of Human Mucin-1, His Tag (Cat. No. MU1-H52H5) and negative control protein respectively, washed and then followed by PE anti-His Tag antibody and analyzed with FACS (Routinely 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.

