

## HUMAN MUC1 PROTEIN, HISTAG

**Cat.#:** 11224

**Product Name:** Human MUC1 Protein

**Size:** 10 µg, 50 µg and 100 µg

**Synonyms:** ADMCKD;ADMCKD1;CA

15-3;CD227;EMA;H23AG;KL-6;MAM6;MCD;MCKD;MCKD1;MUC-1;MUC-1/SEC;MUC-1/X;MUC1/ZD;PEM;PEMT;PUM

**Target:** MUC1

**UNIPROT ID:** P15941

**Description:** Recombinant Human MUC1 Protein with C-terminal 6xHis tag

**Background:** This gene encodes a membrane-bound protein that is a member of the mucin family. Mucins are O-glycosylated proteins that play an essential role in forming protective mucous barriers on epithelial surfaces. These proteins also play a role in intracellular signaling. This protein is expressed on the apical surface of epithelial cells that line the mucosal surfaces of many different tissues including lung, breast stomach and pancreas. 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. This gene is known to contain a highly polymorphic variable number tandem repeats (VNTR) domain. Alternate splicing results in multiple transcript variants.

**Species/Host:** HEK293

**Molecular Weight:** The protein has a predicted molecular mass of 14.4 kDa after removal of the signal peptide.

**Molecular Characterization:** MUC1(Leu1036-Val1156) 6xHis tag

**Purity:** The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.

**Formulation & Reconstitution:** Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.

**Storage & Shipping:** Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.



Figure 1. Human MUC1 Protein, His Tag on SDS-PAGE under reducing condition.