

**MUC1 Antibody**  
Catalog # ASC11689**Specification**

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**MUC1 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P15941</a>
Other Accession	<a href="#">NP_001191215</a> , <a href="#">324120958</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 53 (+ multiple others) kDa
Application Notes	Observed:42, 120 kDa KDa MUC1 antibody can be used for detection of MUC1 by Western blot at 1 - 2 µg/ml.

**MUC1 Antibody - Additional Information**

Gene ID 4582

**Target/Specificity**

MUC1; MUC1 antibody is human and mouse reactive. Multiple isoforms of MUC1 are known to exist. MUC1 often migrates at a higher molecular weight in SDS-PAGE due to high levels of post-translational modification.

**Reconstitution & Storage**

MUC1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

**Precautions**

MUC1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**MUC1 Antibody - Protein Information**

Name MUC1

Synonyms PUM

**Function**

The alpha subunit has cell adhesive properties. Can act both as an adhesion and an anti-adhesion protein. May provide a protective layer on epithelial cells against bacterial and enzyme attack.

**Cellular Location**

Apical cell membrane; Single-pass type I membrane protein. Note=Exclusively located in the apical domain of the plasma membrane of highly polarized epithelial cells After endocytosis, internalized and recycled to the cell membrane Located to microvilli and to the tips of long filopodial protusions [Isoform Y]: Secreted. [Mucin-1 subunit beta]: Cell membrane. Cytoplasm. Nucleus. Note=On EGF and PDGFRB stimulation, transported to the nucleus through interaction

with CTNNB1, a process which is stimulated by phosphorylation. On HRG stimulation, colocalizes with JUP/gamma-catenin at the nucleus

#### Tissue Location

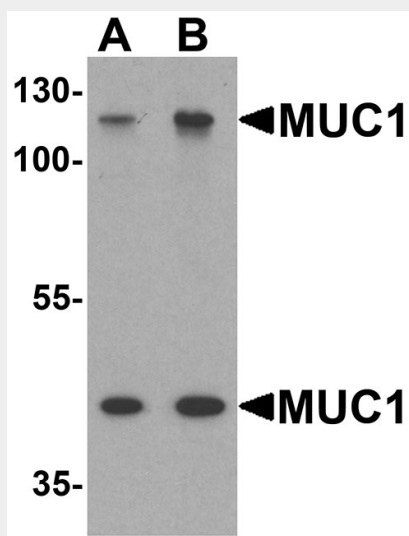
Expressed on the apical surface of epithelial cells, especially of airway passages, breast and uterus. Also expressed in activated and unactivated T-cells. Overexpressed in epithelial tumors, such as breast or ovarian cancer and also in non-epithelial tumor cells. Isoform Y is expressed in tumor cells only

#### MUC1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### MUC1 Antibody - Images



Western blot analysis of MUC1 in HeLa cell lysate with MUC1 antibody at (A) 1 and (B) 2 µg/ml.

#### MUC1 Antibody - Background

Mucin 1 (MUC1) is 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 surfaces and also play a role in intracellular signaling (1). MUC1 is expressed on the apical surface of epithelial cells that line the mucosal surfaces of many different tissues including lung, breast stomach and pancreas. MUC1 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 (1).

**MUC1 Antibody - References**

Singh R and Bandyopadhyay D. MUC1: a target molecule for cancer therapy. *Cancer Biol. Ther.* 2007; 6:481-6.