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MUC1 Antibody
Catalog # ASC11689

Specification

MUC1 Antibody - Product Information

Application	**WB, IHC-P, IF, E**
Primary Accession	P15941
Other Accession	NP_001191215, 324120958
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**Predicted: 53 (+ multiple others) kDa** **Observed:42, 120 kDa KDa**
Application Notes	**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℃ for three months and -20℃, 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

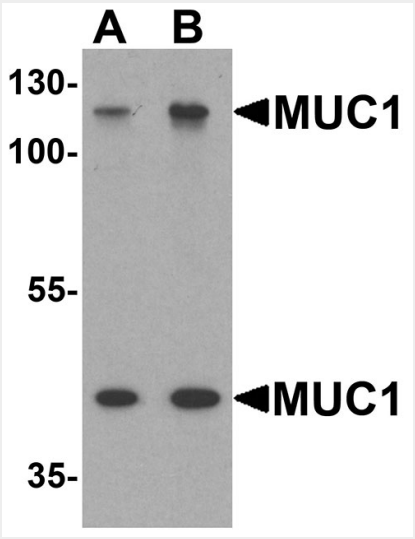
Tissue Location
Expressed on the apical surface of epithelial cells, especially of airway passages, breast and uterus. Also expressed in activated and unactivated T-cells. Overexpressed in epithelial tumors, such as breast or ovarian cancer and also in non-epithelial tumor cells. Isoform Y is expressed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

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