

Anti-MUC1 Antibody
Catalog # ABO11610**Specification**

Anti-MUC1 Antibody - Product Information

Application	WB
Primary Accession	P15941
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Mucin-1(MUC1) detection. Tested with WB in Human.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-MUC1 Antibody - Additional Information

Gene ID 4582

Other Names

Mucin-1, MUC-1, Breast carcinoma-associated antigen DF3, Cancer antigen 15-3, CA 15-3, Carcinoma-associated mucin, Episialin, H23AG, Krebs von den Lungen-6, KL-6, PEMT, Peanut-reactive urinary mucin, PUM, Polymorphic epithelial mucin, PEM, Tumor-associated epithelial membrane antigen, EMA, Tumor-associated mucin, CD227, Mucin-1 subunit alpha, MUC1-NT, MUC1-alpha, Mucin-1 subunit beta, MUC1-beta, MUC1-CT, MUC1, PUM

Calculated MW

122102 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

Apical cell membrane ; Single- pass type I membrane protein . 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.

Tissue Specificity

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 7 is expressed in tumor cells only. .

Protein Name

Mucin-1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human MUC1(1067-1083aa QELQRDISEMFLQIYKQ).

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Contains 1 SEA domain.

Anti-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 protrusions [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

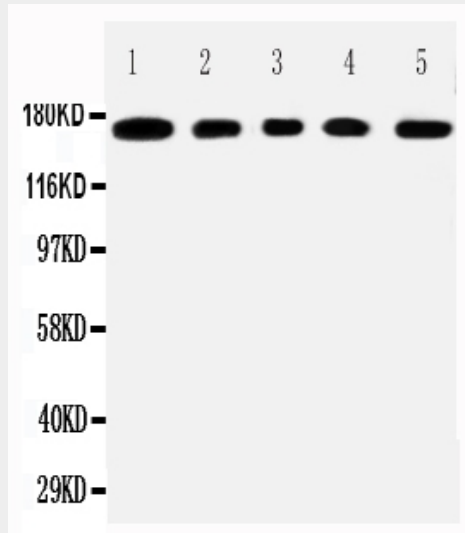
Anti-MUC1 Antibody - Protocols

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](#)

Anti-MUC1 Antibody - Images



Anti-MUC1 antibody, ABO11610, All Western blotting
All lanes: Anti-MUCIN1(ABO11610) at 0.5ug/ml
Lane 1: COLO320 Whole Cell Lysate at 40ug
Lane 2: SW620 Whole Cell Lysate at 40ug
Lane 3: HEPG2 Whole Cell Lysate at 40ug
Lane 4: MCF-7 Whole Cell Lysate at 40ug
Lane 5: JURKAT Whole Cell Lysate at 40ug
Predicted bind size: 122KD
Observed bind size: 170KD

Anti-MUC1 Antibody - Background

Mucin 1, cell surface associated(MUC1) or polymorphic epithelial mucin(PEM) is a mucin encoded by the MUC1 gene in humans. 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. It is mapped to 1q22. Mucin 1 is a transmembrane mucin normally expressed on the apical borders of secretory epithelial cells. Overexpression of Mucin 1 is often associated with colon, breast, ovarian, lung and pancreatic cancers. The protein serves a protective function by binding to pathogens and also functions in a cell signaling capacity. Mucin 1 stimulated ESR1-mediated transcription and contributed to estradiol-mediated growth and survival of breast cancer cells. This gene also can suppress pulmonary innate immunity, and its antiinflammatory activity may play an important modulatory role during microbial infection.