

**MUC1 / EMA / CD227 (Epithelial Marker) Antibody - With BSA and Azide**  
**Mouse Monoclonal Antibody [Clone SPM493 ]**  
**Catalog # AH11882**

### Specification

**MUC1 / EMA / CD227 (Epithelial Marker) Antibody - With BSA and Azide - Product Information**

Application	IHC, IF, FC, E
Primary Accession	<a href="#">P15941</a>
Other Accession	<a href="#">4582</a> , <a href="#">89603</a>
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Calculated MW	265-400kDa KDa

**MUC1 / EMA / CD227 (Epithelial Marker) Antibody - With BSA and Azide - 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

**Application Note**

<span class ="dilution\_IHC">IHC~~1:100~500</span><br /><span class ="dilution\_IF">IF~~1:50~200</span><br /><span class ="dilution\_FC">FC~~1:10~50</span><br /><span class ="dilution\_E">E~~N/A</span>

**Storage**

Store at 2 to 8°C. Antibody is stable for 24 months.

**Precautions**

MUC1 / EMA / CD227 (Epithelial Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

**MUC1 / EMA / CD227 (Epithelial Marker) Antibody - With BSA and Azide - 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

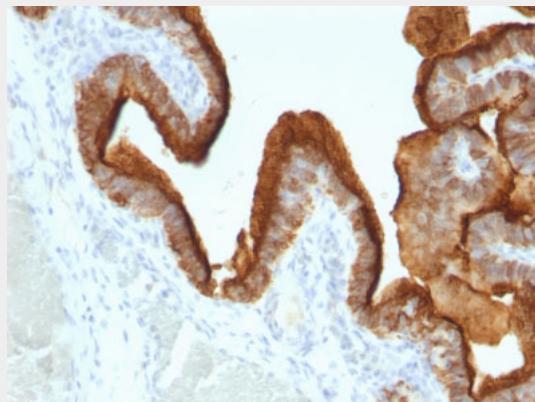
Expressed on the apical surface of epithelial cells, especially of airway passages, breast and uterus. Also expressed in activated and unactivated T-cells. Overexpressed in epithelial tumors, such as breast or ovarian cancer and also in non-epithelial tumor cells. Isoform Y is expressed in tumor cells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

### MUC1 / EMA / CD227 (Epithelial Marker) Antibody - With BSA and Azide - 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 / EMA / CD227 (Epithelial Marker) Antibody - With BSA and Azide - Images



Formalin-fixed, paraffin-embedded human Ovarian Carcinoma stained with EMA Monoclonal Antibody (SPM493).

### MUC1 / EMA / CD227 (Epithelial Marker) Antibody - With BSA and Azide - Background

This MAb reacts with MUC1. The dominant epitope of this MAb has not yet been determined. MUC1 is a large cell surface mucin glycoprotein expressed by most glandular and ductal epithelial cells and some hematopoietic cell lineages. It is expressed on most secretory epithelium, including mammary gland and some hematopoietic cells. It is expressed abundantly in lactating mammary

glands and over expressed abundantly in >90% breast carcinomas and metastases. Transgenic MUC1 has been shown to associate with all four c-erbB receptors and localize with c-erbB1 (EGFR) in lactating glands. The MUC1 gene contains seven exons and produces several different alternatively spliced variants. The major expressed form of MUC1 uses all seven exons and is a type 1 transmembrane protein with a large extracellular tandem repeat domain. The tandem repeat domain is highly O glycosylated and alterations in glycosylation have been shown in epithelial cancer cells. Antibody to EMA is useful as a pan-epithelial marker for detecting early metastatic loci of carcinoma in bone marrow or liver.

**MUC1 / EMA / CD227 (Epithelial Marker) Antibody - With BSA and Azide - References**

Hilkens, J., Buijs, F., Hilgers, J., Hageman, P., Calafat, J., Sonnenberg, A. and van der Valk, M. 1984. Monoclonal antibodies against human milk-fat globule membranes detecting differentiation antigens of the mammary gland and its tumors. *Int. J. Cancer* 34: 197-206. |