

**MUC1 / EMA / CD227 (Epithelial Marker) Antibody - With BSA and Azide**  
**Mouse Monoclonal Antibody [Clone SPM533 ]**  
**Catalog # AH10601**

**Specification**

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

Application	,14,3,4,
Primary Accession	<a href="#">P15941</a>
Other Accession	<a href="#">4582</a> , <a href="#">89603</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2a, 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

**Format**

200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

**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

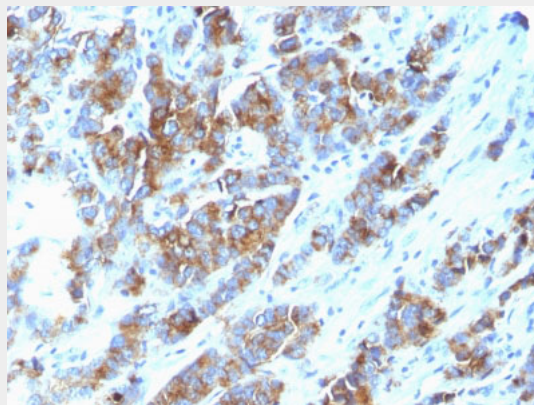
Expressed on the apical surface of epithelial cells, especially of airway passages, breast and uterus. Also expressed in activated and unactivated T-cells. Overexpressed in epithelial tumors, such as breast or ovarian cancer and also in non-epithelial tumor cells. Isoform Y is expressed in tumor cells 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 Breast Carcinoma stained with MUC-1 / EMA Monoclonal Antibody (SPM533).

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

In Western blotting, it recognizes proteins in MW range of 265-400kDa, identified as different glycoforms of EMA. This protein is proteolytically cleaved into  $\alpha$  and  $\beta$  subunits that form a heterodimeric complex. The N-terminal  $\alpha$  subunit and the C-terminal  $\beta$  subunit. . The  $\alpha$  subunit has cell adhesive properties. It can act both as an adhesion and an anti-adhesion protein. EMA may provide a protective layer on epithelial cells against bacterial and enzyme attack. The  $\beta$  subunit

contains a C-terminal domain, which is involved in cell signaling, through phosphorylations and protein-protein interactions. In immunohistochemical assays, it superbly stains routine formalin/paraffin carcinomas. 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**

Cordell J et al. 1985. Br J Cancer 52(3):347-54. | Heyderman E et al. 1985. Br J Cancer 52(3):355-61