

**MUC1 / EMA / CD227 (Epithelial Marker) Antibody - With BSA and Azide**  
**Mouse Monoclonal Antibody [Clone HMPV ]**  
**Catalog # AH11857****Specification****MUC1 / EMA / CD227 (Epithelial Marker) Antibody - With BSA and Azide - Product Information**

Application	IHC-P, IF, FC
Primary Accession	<a href="#">P15941</a>
Other Accession	<a href="#">4582</a> , <a href="#">89603</a>
Reactivity	Human
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**

IHC-P~~N/A  
IF~~1:50~200  
FC~~1:10~50

**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**

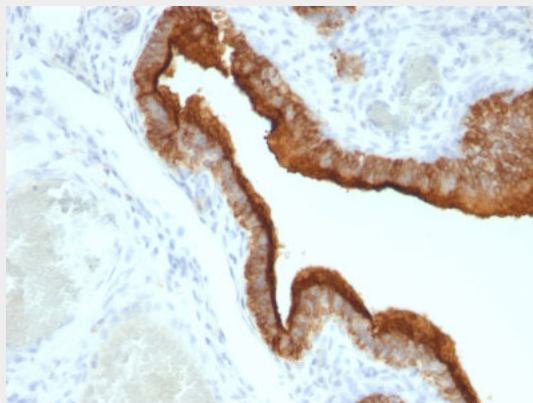
Expressed on the apical surface of epithelial cells, especially of airway passages, breast and uterus. Also expressed in activated and unactivated T-cells. Overexpressed in epithelial tumors, such as breast or ovarian cancer and also in non-epithelial tumor cells. Isoform Y is expressed in tumor cells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

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

This MAb recognizes full-length MUC1 in a glycosylation-independent manner and can bind to the fully glycosylated protein. The dominant epitope of this MAb is APDTR in the VNTR region. It reacts with the core peptide of the MUC1 protein, which is a member of a family of mucin glycoproteins that are characterized by high carbohydrate content, O-linked oligosaccharides, high molecular weight (>200kDa) and an amino acid composition rich in serine, threonine, proline and glycine. The

core protein contains a domain of 20 amino-acid tandem repeats that functions as multiple epitopes for the MAb. Incomplete glycosylation of some tumor-associated mucins may lead to variable unmasking of the multiple peptide epitopes leading to the observed differences in staining intensity between normal and malignant tissues. This MAb reacts with both normal and malignant epithelia of various tissues including breast and colon.

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

Xing PX, Prenzoska J, McKenzie IF. Epitope mapping of anti-breast and anti-ovarian mucin monoclonal antibodies. Mol Immunol. 1992 May;29(5):641-50. | Uwe Karsten, Catherine Diotel, Gunther Klich, Hans Paulsen, Steffen Goletz, Stefan Muller, and Franz-Georg Hanisch. Enhanced Binding of Antibodies to the DTR Motif of MUC1 Tandem Repeat Peptide Is Mediated by Site-specific Glycosylation<sup>1</sup>. Cancer Research 58, 2541-2549, June 15. 1998 | Devine PL, Birrell GW, Whitehead RH, Harada H, Xing PX, McKenzie IF. Expression of MUC1 and MUC2 mucins by human tumor cell lines. Tumour Biol. 1992; 13(5):268-277