10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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

Mouse Monoclonal Antibody [Clone 139H2]
Catalog # AH11876

Product Information

Application	IHC, IF, FC, E
Primary Accession	P15941
Other Accession	4582, 89603
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	139H2
Calculated MW	122102

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~~1:100~500 IF~~1:50~200 FC~~1:10~50 E~~N/A
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.

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

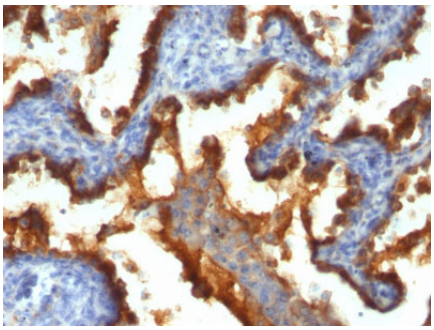
Background

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.

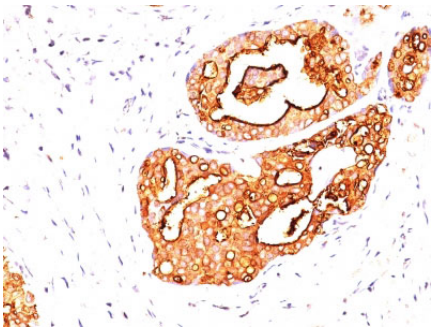
References

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

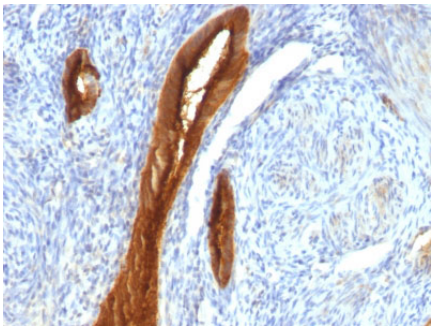
Images



Formalin-fixed, paraffin-embedded human Lung Cancer stained with EMA Monoclonal Antibody (139H2).



Formalin-fixed, paraffin-embedded human Breast Cancer stained with EMA Monoclonal Antibody (139H2).



Formalin-fixed, paraffin-embedded human Endometrial Carcinoma stained with EMA Monoclonal Antibody (139H2).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.