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

Mouse Monoclonal Antibody [Clone SPM533]
Catalog # AH10601

Product Information

Application	IF, FC, IHC-P
Primary Accession	P15941
Other Accession	4582, 89603
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2a, kappa
Clone Names	SPM533
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	IF~~1:50~200 FC~~1:10~50 IHC-P~~N/A
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.

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

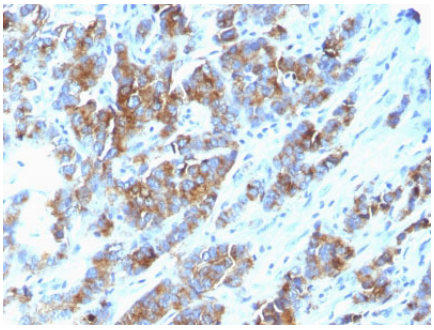
Background

In Western blotting, it recognizes proteins in MW range of 265-400kDa, identified as different glycoforms of EMA. This protein is proteolytically cleaved into α and β subunits that form a heterodimeric complex. The N-terminal α subunit and the C-terminal β subunit. . The α 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 β 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.

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

Images



Formalin-fixed, paraffin-embedded human Breast Carcinoma stained with MUC-1 / EMA Monoclonal Antibody (SPM533).

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