

Anti-Episialin, EMA Antibody (Monoclonal, GP1.4)
Catalog # ABO10430**Specification****Anti-Episialin, EMA Antibody (Monoclonal, GP1.4) - Product Information**

Application	IHC-P, IHC-F
Primary Accession	P15941
Host	Mouse
Isotype	Mouse IgG1
Reactivity	Human
Clonality	Monoclonal
Format	Lyophilized

Description

Mouse IgG monoclonal antibody for Episialin, EMA, mucin 1, cell surface associated (MUC1) detection. Tested with IHC-P, IHC-F in Human. No cross reactivity with other proteins.

Reconstitution

Add 1ml of PBS buffer will yield a concentration of 100ug/ml.

Anti-Episialin, EMA Antibody (Monoclonal, GP1.4) - 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

Calculated MW

122102 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 2-4 µg/ml, Human, By Heat

Immunohistochemistry(Frozen Section), 2-4 µg/ml, Human

Subcellular Localization

Apical cell membrane ; Single- pass type I membrane protein . 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.

Tissue Specificity

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 7 is expressed in tumor cells only. .

Protein Name

Mucin-1

ContentsMouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN₃ as preservative.**Immunogen**

Human milk fat globule membranes.

Purification

Ascites

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Contains 1 SEA domain.

Anti-Episialin, EMA Antibody (Monoclonal, GP1.4) - 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

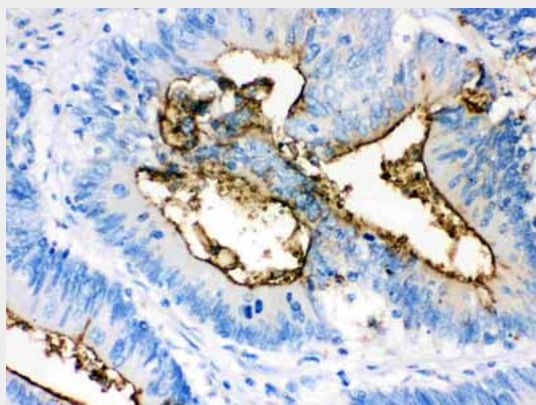
Anti-Episialin, EMA Antibody (Monoclonal, GP1.4) - Protocols

Provided below are standard protocols that you may find useful for product applications.

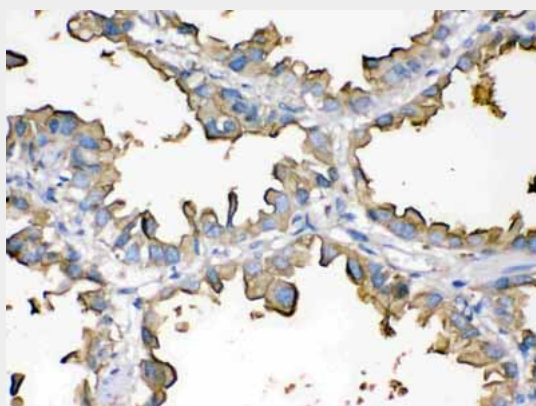
- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

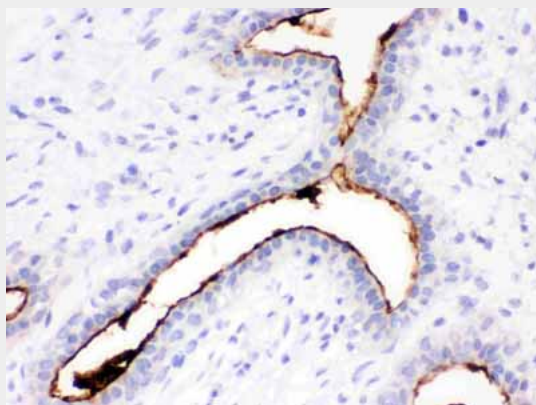
Anti-Episialin, EMA Antibody (Monoclonal, GP1.4) - Images



Anti- Episialin, EMA antibody, ABO10430, IHC(P)IHC(P): Human Intestinal Cancer Tissue



Anti- Episialin, EMA antibody, ABO10430, IHC(P)IHC(P): Human Lung Cancer Tissue



Anti- Episialin, EMA antibody, ABO10430, IHC(P)IHC(P): Human Mammary Cancer Tissue

Anti-Episialin, EMA Antibody (Monoclonal, GP1.4) - Background

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 overexpressed abundantly in >90% breast carcinomas and metastases. Transgenic MUC1 has been shown to associate with all four cebB receptors and localize with 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 I 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.