



## Product Information Sheet

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### Monoclonal Anti-Episialin, EMA

**Catalogue No.** MA1039

**Immunogen**

Human milk fat globule membranes.

**Lot No.** 08A12

**Purification**

Purified by the goat anti-mouse IgG affinity chromatography.

**Clone:** EMA-39

**Ig type:** mouse IgG1

**Application**

*Immunohistochemistry(P)*

**Size:** 100µg/vial

At 2-4µg/ml to detect EMA in formalin fixed and paraffin embedded tissues.

**Specificity**

*Immunohistochemistry(F)*

Human.

At 2-4µg/ml to detect EMA in formalin or acetone fixed tissues.

No cross reactivity with other proteins.

*Other applications have not been tested.*

*Optimal dilutions should be determined by end user.*

**Recommended application**

*Immunohistochemistry(P)*

*Immunohistochemistry(F)*

**Formulation**

Lyophilized from 1.2% sodium acetate, with 2mg BSA and 0.01mg NaN<sub>3</sub> as preservative.

**Reconstitution**

1.2% sodium acetate or neutral PBS. If 1ml of PBS is used, the antibody concentration will be 100µg/ml.

To reorder contact us at:

**Antagene, Inc.**

**Toll Free: 1(866)964-2589**

**email: Info@antageneinc.com**

**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 longer time.

### 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 cerbB 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 1 transmembrane

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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.

#### **REFERENCE**

1. Lu, W.; Hisatsune, A.; Koga, T.; Kato, K.; Kuwahara, I.; Lillehoj, E. P.; Chen, W.; Cross, A. S.; Gendler, S. J.; Gewirtz, A. T.; Kim, K. C. : Cutting edge: enhanced pulmonary clearance of *Pseudomonas aeruginosa* by Muc1 knockout mice. *J. Immun.* 176: 3890-3894, 2006.
2. Sood, R.; Zehnder, J. L.; Druzin, M. L.; Brown, P. O. : Gene expression patterns in human placenta. *Proc. Nat. Acad. Sci.* 103: 5478-5483, 2006.
3. Wei, X.; Xu, H.; Kufe, D. : MUC1 oncoprotein stabilizes and activates estrogen receptor alpha. *Molec. Cell* 21: 295-305, 2006.