Product Information Sheet

Monoclonal Anti-Mucin Gastric

Catalogue No. MA1061

Lot No. 08A12

Clone: MG-31

Ig type: mouse IgG1

Size: 100µg/vial

Specificity

Human.

No cross reactivity with other proteins.

Recommended application

Western blot

Immunohistochemistry(P)

Immunocytochemistry

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Immunogen

Mucin from human ovarian cyst fluid.

Purification

Purified by the goat anti-mouse IgG affinity chromatography.

Application

Western blot

At 1-2µg/ml with the appropriate system to detect mucin gastric in cells and tissues.

Immunohistochemistry(P)

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

Immunocytochemistry Suitable

Other applications have not been tested.

Optimal dilutions should be determined by end user.

Formulation

Lyophilized from 1.2% sodium acetate, with 2mg BSA and 0.01mg NaN_3 as preservative.

Reconstitution

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

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 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 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.

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.