



HISTOPRIME[®]

CatNo E049

Epithelial Membrane Antigen (EMA)

Lot: See Label

Storage: +2 to +8 °C

Exp. Date: See Label

Monoclonal Antibody against Epithelial membrane antigen

Specificity

Epithelial membrane antigen belongs to a group of heterogenous glycoproteins isolated from the membrane of human milk fat globules. These proteins are also known as human milk fat globulins (HMFG). Their molecular weight ranges from 265 to 400 kD. In addition to milk, these proteins are found in a number of normal epithelia as well as in tumors derived from them.

Contents

Reagents sufficient for about 50-100 tissue sections
1 dropper bottle **HISTOPRIME[®] Epithelial Membrane Antigen** (Bottle, 5 ml)

Application

The E049 antibody reacts with a variety of human epithelial cells. In epithelial tumors, this marker is also strongly expressed. Thereby, mammary carcinomas show the strongest expression. Moreover, the antibody is particularly reactive in tumors of glandular origin (e.g. sweat glands). The antigen can also be detected in squamous cell carcinomas, even if the epithelium of origin (e.g. epidermis) itself is not reactive. In contrast, non-epithelial tumors do not contain detectable EMA.

The antibody also detects some lymphoid neoplasms, especially CD30-positive large cell lymphomas.

Fusion Partners

The monoclonal antibody was obtained by immunizing mice with human milk fat globulin and fusing the spleen cells with mouse myeloma cells.

E049-230109-1/2



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Characterization

Antigen	Epithelial membrane antigen
Specificity	Human Epithelial Membrane Antigen (EMA)
Clone	E29
Isotype	Mouse IgG2a
Pretreatment	Proteolytic pretreatment of the paraffin sections is not required.
Incubation Period	1 hour by room temperature
Control Tissue	Breast Cancer
Application	Ready-to-use in PBS, BSA, NaN ₃ (0.09%) pH 7.4(*) suitable on cryostat sections and on formalin-fixed, paraffin-embedded tissue sections.
Recommended Secondary Reagents	Alkaline Phosphatase Vectastain [®] ABC Mouse IgG (Vector CatNo AK-5002) and Substrate-Kit e.g. Vector [®] Red (Vector CatNo SK-5100). Peroxidase Vectastain [®] ABC-Elite Mouse IgG (Vector CatNo PK-6102) and Peroxidase Substrate-Kit e.g. DAB (LINARIS CatNo E108) or HistoGreen (LINARIS CatNo E109).

References

- Heydermann, E., Strudly I., Powell G., Richardson T. C., Cordell J. L., and Mason D. Y. (1985). A new monoclonal antibody to epithelial membrane antigen (EMA) – E29. A comparison of its immunocytochemical reactivity with polyclonal anti-EMA antibodies and with another monoclonal antibody HMFG-2. Br. J. Cancer 52; 355-361.
- Delsol G., Al Saati T., Gatter K. C., Gerdes J., Schwarting R., Caveriviere P., et al. (1988). Coexpression of epithelial membrane antigen (EMA), Ki-1, and Interleukin-2 receptor by anaplastic large cell lymphomas. Am. J. Pathol. 130; 59-70.
- Wick M. R., Swansson P. E., and Manivel J. C. (1988). Immunohistochemical findings in tumors of skin. In: De Lellis R. A. ed. Advances in Immunohistochemistry, Raven Press, New York pp. 395-429.
- Russo J. and Russo I. H. (1988). Immunocytochemical markers in breast cancer. In: De Lellis R. A. ed Advances in Immunohistochemistry, Raven Press, New York pp. 431-475.

Differential identification is aided by the results from a panel of antibodies. Interpretation must be made within the context of the patient's clinical history and other diagnostics tests by a qualified pathologist.

(*)Note **E049 contains Sodium Azide; take adequate precautions!**

E049-230109-2/2

For Research use only. Not for use in diagnostic procedure

