



Cytokeratin 8 (H1)

CATALOG NUMBER: MUB0317P
CLONE: H1
SPECIES / ISOTYPE: mouse IgG1
PRODUCT FORM: purified monoclonal antibody

BACKGROUND

Cytokeratins are a subfamily of intermediate filament proteins and are characterized by a remarkable biochemical diversity, represented in human epithelial tissues by at least 20 different polypeptides. They range in molecular weight between 40 kDa and 68 kDa and isoelectric pH between 4.9 – 7.8. The individual human cytokeratins are numbered 1 to 20.

The various epithelia in the human body usually express cytokeratins which are not only characteristic of the type of epithelium, but also related to the degree of maturation or differentiation within an epithelium.

Cytokeratin subtype expression patterns are used to an increasing extent in the distinction of different types of epithelial malignancies. The cytokeratin antibodies are not only of assistance in the differential diagnosis of tumors using immunohistochemistry on tissue sections, but are also a useful tool in cytopathology and flow cytometric assays.

SOURCE

H1 is a mouse monoclonal IgG1 antibody derived by fusion of murine myeloma cells with spleen cells from a mouse immunized with a cytoskeleton preparation containing cytokeratin 8.

PRODUCT

Each vial contains 100 µg (500 µl 0.2 mg/ml) purified monoclonal antibody in PBS containing 50% glycerol, 0.1% BSA and 0.02% sodium azide.

SPECIFICITY

H1 reacts with glandular epithelial cells (endocrine and exocrine) as well as mesothelial cells of the digestive, respiratory and urogenital tract and most adenocarcinomas derived from these cells.

APPLICATIONS

H1 is suitable for immunoblotting, immunocytochemistry, immunohistochemistry on frozen and paraffin-embedded tissues and flow cytometry. Optimal antibody dilution should be determined by

titration; recommended range is 1:25 – 1:200 for flow cytometry, and for immunohistochemistry with avidin-biotinylated horseradish peroxidase complex (ABC) as detection reagent, and 1:100 – 1:1000 for immunoblotting applications.

SPECIES REACTIVITY

Human.

STORAGE

Store at 4°C, or in small aliquots at –20°C.

REFERENCES

1. Guelstein, V. I., Tchypysheva, T. A., Ermilova, V. D., Litvinova, L. V., Troyanovsky, S. M., Bannikov, G. A. (1988). Monoclonal antibody mapping of keratins 8 and 17 and of vimentin in normal human mammary gland, benign tumors, dysplasias and breast cancer, *Int J Cancer* **42**, 147-53.
2. Troyanovsky, S. M., Guelstein, V. I., Tchypysheva, T. A., Krutovskikh, V. A., Bannikov, G. A. (1989). Patterns of expression of keratin 17 in human epithelia: dependency on cell position, *J Cell Sci* **93**, 419-26.
3. Ljubimov, A. V., Bartek, J., Couchman, J. R., Kapuller, L. L., Veselov, V. V., Kovarik, J., Perevoshchikov, A. G., and Krutovskikh, V. A. (1992). Distribution of individual components of basement membrane in human colon polyps and adenocarcinomas as revealed by monoclonal antibodies. *Int J Cancer* **50**, 562-566.
4. Litvinov, S. V., van Driel, W., van Rhijn, C. M., Bakker, H. A., van Krieken, H., Fleuren, G. J., and Warnaar, S. O. (1996). Expression of Ep-CAM in cervical squamous epithelia correlates with an increased proliferation and the disappearance of markers for terminal differentiation. *Am J Pathol* **148**, 865-875.

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WARNING and CAUTION

This product is intended FOR RESEARCH USE ONLY, and FOR TEST IN VITRO, not for use in diagnostic or therapeutic procedures involving humans or animals.

This product contains sodium azide. To prevent formation of toxic vapors, do not mix with strong acidic solutions. To prevent formation of potentially explosive metallic azides in metal plumbing, always wash into drain with copious quantities of water.

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