



Cytokeratin 8 (M20)

CATALOG NUMBER: MUB0318S

CLONE: M20

SPECIES / ISOTYPE: mouse IgG1

PRODUCT FORM: culture supernatant of monoclonal antibody

BACKGROUND

Cytokeratins are a subfamily of intermediate filament proteins and are characterized by a remarkable biochemical diversity, represented in 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 cytokeratin polypeptides 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

M20 is a mouse monoclonal IgG1 antibody derived by fusion of murine myeloma cells with spleen cells from a mouse immunized with keratin isolated from the human breast carcinoma cell line MCF-7.

PRODUCT

Each vial contains 1 ml of culture supernatant of monoclonal antibody containing 0.09% sodium azide.

SPECIFICITY

M20 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.

M20 is suitable for immunoblotting, immunocytochemistry, immunohistochemistry on frozen tissues and flow cytometry. Optimal antibody dilution should be determined by titration; recommended range is 1: 5 – 1:10 for immunohistochemistry with avidin-biotinylated horseradish peroxidase complex (ABC) as detection

reagent, and 1:5 – 1: 20 for immunoblotting applications.

SPECIES REACTIVITY

Human and mouse.

STORAGE

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

REFERENCES

1. Van Muijen, G. N., Ruiter, D. J., and Warnaar, S. O. (1987). Coexpression of intermediate filament polypeptides in human fetal and adult tissues, *Lab Invest* 57, 359-69.
2. Van Muijen, G. N., Warnaar, S. O., and Ponc, M. (1987). Differentiation-related changes of cytokeratin expression in cultured keratinocytes and in fetal, newborn, and adult epidermis, *Exp Cell Res* 171, 331-45.
3. Schaafsma, H. E., Ramaekers, F. C., van Muijen, G. N., Ooms, E. C., and Ruiter, D. J. (1989). Distribution of cytokeratin polypeptides in epithelia of the adult human urinary tract, *Histochemistry* 91, 151-9.
4. Smedts, F., Ramaekers, F., Robben, H., Pruszczynski, M., van Muijen, G., Lane, B., Leigh, I., and Vooijs, P. (1990). Changing patterns of keratin expression during progression of cervical intraepithelial neoplasia, *Am J Pathol* 136, 657-68.
5. Ramaekers, F., van Niekerk, C., Poels, L., Schaafsma, E., Huijsmans, A., Robben, H., Schaart, G., and Vooijs, P. (1990). Use of monoclonal antibodies to keratin 7 in the differential diagnosis of adenocarcinomas, *Am J Pathol* 136, 641-55.
6. Schaafsma, H. E., Ramaekers, F. C., van Muijen, G. N., Lane, E. B., Leigh, I. M., Robben, H., Huijsmans, A., Ooms, E. C., and Ruiter, D. J. (1990). Distribution of cytokeratin polypeptides in human transitional cell carcinomas, with special emphasis on changing expression patterns during tumor progression, *Am J Pathol* 136, 329-43.
7. Ivanyi, D., Groeneveld, E., Van Doornwaard, G., Mooi, W. J., and Hageman, P. C. (1990). Keratin subtypes in carcinomas of the uterine

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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- cervix: implications for histogenesis and differential diagnosis, *Cancer Res* 50, 5143-52.
8. Wetzels, R. H., Kuijpers, H. J., Lane, E. B., Leigh, I. M., Troyanovsky, S. M., Holland, R., van Haelst, U. J., and Ramaekers, F. C. (1991). Basal cell-specific and hyperproliferation-related keratins in human breast cancer, *Am J Pathol* 138, 751-63.
 9. Ku, N. O., Gish, R., Wright, T. L., and Omary, M. B. (2001). Keratin 8 mutations in patients with cryptogenic liver disease, *N Engl J Med* 344, 1580-7.

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