



Cytokeratins 5 and 8 (RCK102)

CATALOG NUMBER: MUB0314S

CLONE: RCK102

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 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

RCK102 is a mouse monoclonal IgG1 antibody derived by fusion of SP2/0 mouse myeloma cells with spleen cells from a mouse immunized with cytokeratins from a human lung cancer cell line (MR21).

PRODUCT

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

SPECIFICITY

RCK102 is a cytokeratin antibody reacting with cytokeratin 5 and cytokeratin 8. This monoclonal antibody recognizes virtually all epithelial tissues and carcinomas.

RCK102 is suitable for immunoblotting, immunocytochemistry, immunohistochemistry on frozen sections and paraffin-embedded tissues and for immunohistochemistry with avidin-biotinylated horseradish peroxidase complex (ABC) as detection reagent and flow cytometry. Optimal antibody dilution should be determined by titration.

SPECIES REACTIVITY

Human, mouse, rat, hamster, rabbit, canine, swine.

STORAGE

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

REFERENCES

1. Broers, J. L., Carney, D. N., Klein Rot, M., Schaart, G., Lane, E. B., Vooijs, G. P., and Ramaekers, F. C. (1986). Intermediate filament proteins in classic and variant types of small cell lung carcinoma cell lines: a biochemical and immunochemical analysis using a panel of monoclonal and polyclonal antibodies, *J Cell Sci* 83, 37-60.
2. 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.
3. Ramaekers, F., Huysmans, A., Schaart, G., Moesker, O., and Vooijs, P. (1987). Tissue distribution of keratin 7 as monitored by a monoclonal antibody, *Exp Cell Res* 170, 235-49.
4. Smedts, F., Ramaekers, F., Troyanovsky, S., Pruszczynski, M., Link, M., Lane, B., Leigh, I., Schijf, C., and Vooijs, P. (1992). Keratin expression in cervical cancer, *Am J Pathol* 141, 497-511.
5. Raats, J. M., Pieper, F. R., Vree Egberts, W. T., Verrijp, K. N., Ramaekers, F. C., and Bloemendal, H. (1990). Assembly of amino-terminally deleted desmin in vimentin-free cells, *J Cell Biol* 111, 1971-85.
6. 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.
7. Bauwens, L. J., De Groot, J. C., Ramaekers, F. C., Veldman, J. E., and Huizing, E. H. (1992). Expression of intermediate filament proteins in

WARNING and CAUTION

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- the adult human vestibular labyrinth, *Ann Otol Rhinol Laryngol* 101, 479-86.
8. Schaafsma, H. E., Ramaekers, F. C., van Muijen, G. N., Lane, E. B., Leigh, I. M., Robben, H., Huijsmans, A., Ooms, E. C., and Ruiters, 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.
 9. Coonen E., Dumoulin J.C.M., Ramaekers F. (1993). Intermediate filament protein expression in early developmental stages of the mouse, *Histochem* 99, 141-149

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