



Cytokeratin 7 (OVTL12/30)

CATALOG NUMBER: MUB0316S

CLONE: OVTL12/30

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

OVTL12/30 is a mouse monoclonal IgG1/ κ antibody derived by fusion of SP2/0-Ag14 mouse myeloma cells with spleen cells from a mouse immunized with a cytoskeletal preparation of OTN-11 ovarian carcinoma cell line.

PRODUCT

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

SPECIFICITY

OVTL12/30 reacts exclusively with cytokeratin 7 which is present in specific glandular-type epithelia and most carcinomas derived thereof.

OVTL12/30 is effective on frozen tissue after fixation in methanol. It is particularly effective on paraffin-embedded tissue, for which pretreatment with e.g. 0.1% pronase / 0.1% trypsin in PBS or 0.5% pepsine in 0.01N HCl or microwave pretreatment is required. In addition, OVTL 12/30 is suitable for immunocytochemistry, and for immunohistochemistry, with avidin-biotinylated horseradish peroxidase complex (ABC) as detection

reagent, immunoblotting and flow cytometry. Optimal antibody dilution should be determined by titration.

SPECIES REACTIVITY

Human exclusively.

STORAGE

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

REFERENCES

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2. van Niekerk, C. C., Jap, P. H., Ramaekers, F. C., van de Molengraft, F., and Poels, L. G. (1991). Immunohistochemical demonstration of keratin 7 in routinely fixed paraffin-embedded human tissues, *J Pathol* 165, 145-52.
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4. van de Molengraft, F. J., van Niekerk, C. C., Jap, P. H., and Poels, L. G. (1993). OV-TL 12/30 (keratin 7 antibody) is a marker of glandular differentiation in lung cancer, *Histopathology* 22, 35-8.
5. van Niekerk, C. C., Vooijs, P., Casparie-van Velsen, I. J., and Poels, L. G. (1997). Differentiation margins of ovarian tumor pathology: first incidences of epithelial ovarian tumors monitored by marker antibodies, *Cancer Detect Prev* 21, 247-57.
6. Torenbeek, R., Lagendijk, J. H., Van Diest, P. J., Bril, H., van de Molengraft, F. J., and Meijer, C. J. (1998). Value of a panel of antibodies to identify the primary origin of adenocarcinomas presenting as bladder carcinoma, *Histopathology* 32, 20-7.

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WARNING and CAUTION

This product is intended FOR RESEARCH USE ONLY, and FOR TESTS 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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