



Cytokeratin 4 (6B10)

CATALOG NUMBER: MUB0313S
CLONE: 6B10
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

6B10 is a mouse monoclonal IgG1 antibody derived by fusion of SP2/0 mouse myeloma cells with spleen cells from a BALB/c mouse immunized with a cytokeratin preparation extracted from human esophagus.

PRODUCT

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

SPECIFICITY

6B10 reacts exclusively with cytokeratin 4 which is present in non-cornifying squamous epithelium, including cornea and transitional epithelium. Cells in certain ciliated pseudo-stratified epithelia and ductal epithelia of various exocrine glands are also positive for 6B10.

6B10 is useful for immunocytochemistry, immunohistochemistry on frozen and tissuesand 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, canine and feline.

STORAGE

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

REFERENCES

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3. Ivanyi, D., Minke, J. M., Hageman, C., Groeneveld, E., and van Doornwaard, G. (1992). Patterns of expression of feline cytokeratins in healthy epithelia and mammary carcinoma cells, *Am J Vet Res* 53, 304-14.
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5. Ivanyi, D., Minke, J. M., Hageman, C., Groeneveld, E., van Doornwaard, G., and Misdorp, W. (1993). Cytokeratins as markers of initial stages of squamous metaplasia in feline mammary carcinomas, *Am J Vet Res* 54, 1095-102.
6. Corver, W. E., Koopman, L. A., van der Aa, J., Regensburg, M., Fleuren, G. J., and Cornelisse, C. J. (2000). Four-color

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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multiparameter DNA flow cytometric method to study phenotypic intratumor heterogeneity in cervical cancer, Cytometry 39, 96-107.

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