



Mab to Keratin K19

Clone Determination	Ks 19.1
Category	Mouse monoclonal
Immunoglobulin Class	IgG2a
Purification	Protein A affinity chromatography
Immunogen	Keratin K19 of Mr 40 000; from cultured human MCF-7 cells
Description/Specificity	<p>Ks 19.1 represents an excellent marker to discriminate glandular epithelial carcinoma from those of different origin. No reaction with hepatocellular carcinoma. Polypeptide reacting: Mr 40 000 polypeptide (keratin K19; formerly also designated cytokeratin 19) of human glandular epithelia. The epitope has been localized on aa. 311-335 (QSQLSMKAALEDTLAETEARFGAQL) of the α-helical fragment.</p> <p>Tumors specifically detected: All tested adenocarcinoma; cholangio ca. of liver; renal cell carcinoma; transitional cell ca. of the bladder; ovary ca.; squamous cell ca. of cervix, bronchus and lung (intermediate type); mesothelioma; carcinoid tumor of bronchus; breast ca.; thymoma</p>
Antigen Recognized in Species (tested so far)	Human
Reactivities on Cultured Cell Lines (tested so far)	MCF-7, RT 112, Detroit 562, RPMI 2650, HT-29, SSC-12
Application	<p>Immunoblotting Immunofluorescence microscopy Immunohistochemistry</p> <p>Suitable for frozen tissue, paraffin-embedded tissue (microwave procedure highly recommended), cytological material</p>
Working Dilution	Ready-to-use for immunohistochemical application
Storage	At 2-8°C
Incubation Time	1 h at RT, extended with paraffin
Quantity	5 mL (contains 0.09 % sodium azide, 0.5% BSA in PBS buffer, pH 7.4)

Cat. No. 65010

References

- Balaton, A.J., Nehama-Sibony, M., Gotheil, C., Callard, P. and Baviera, E.E.: Distinction between hepatocellular carcinoma, cholangiocarcinoma, and metastatic carcinoma based on immunohistochemical staining for carcinoembryonic antigen and for cytokeratin 19 on paraffin sections. *J. Pathol.* **156**, 305-310 (1988)
- Dockhorn-Dworniczak, B., Franke, W.W., Schröder, S., Czernobilsky, B., Gould, V.E. and Böcker, W.: Patterns of expression of cytoskeletal proteins in human thyroid gland and thyroid carcinomas. *Differentiation* **35**, 53-71 (1987)
- Franke, W.W., Moll, R., Achtstätter Th. and Kuhn, C.: Cell typing of epithelia and carcinomas of the female genital tract using cytoskeletal proteins as markers. *Banbury Report 21: Viral Etiology of Cervical Cancer*, Cold Spring Harbor Laboratory (NY), 121-148 (1986)
- Karsten U., Papsdorf, G., Roloff, G., Stolley, Abel, H., Walther, I. and Weiss, E.: Monoclonal anti-cytokeratin antibody from a hybridoma clone generated by electrofusion. *Eur. J. Cancer Clin. Oncol.* **21**, 733-740 (1985)
- Kasper, M., Stosiek, P., Typlt, H. and Karsten, U.: Histological evaluation of three new monoclonal anti-cytokeratin antibodies. 1. Normal tissues. *Eur. J. Cancer Clin. Oncol.* **23**, 137-147 (1987)
- Lindberg, K. and Rheinwald, J.G.: Suprabasal 40 kD keratin (K19) expression as an immunohistologic marker of premalignancy in oral epithelium. *Am. J. Pathol.* **134**, 89-98 (1989)
- Moll, R., Franke, W.W., Schiller, D.L., Geiger, B. and Krepler, R.: The catalog of human cytokeratins: Patterns of expression in normal epithelia, tumors and cultured cells. *Cell* **31**, 11-24 (1982)
- Demirkesen C, Hoede N, Moll R: Epithelial markers and differentiation in adnexal neoplasms of the skin: an immunohistochemical study including individual cytokeratins. *J Cutan Pathol* **22**: 518-535 (1995).
- Hasholzer U, Schambeck C, Fabricius PG, Stieber P, Hofmann K, Jansen H-M, Schmeller N, Fateh-Moghadam A: Die klinische Relevanz des neuen Tumormarkers CYFRA 21-1 bei Blasenkarzinomen im Vergleich zu TPA und TPS. *Lab Med* **17**, 324--327 (1993)
- Stieber P, Hasholzner U, Bodenmüller H, Nagel D, Sunder-Plassmann L, Dienemann H, Meier W, Fateh-Moghadam A: CYFRA 21-1, a new marker in lung cancer. *Cancer* **72**, 707-713 (1993)
- Pujol JL, Grenier J, Daurès JP, Daver A, Pujol H, Michel FB: Serum fragment of cytokeratin subunit 19 measured by CYFRA 21-1 immunoradiometric assay as a marker of lung cancer. *Cancer Res.* **53**, 61-66 (1993)
- Van der Gaast A, Schoenmakers CHH, Kok TC, Blijenberg BG, Cornillie F, Splinter TAW: Evaluation of a new tumour marker in patients with non-small-cell lung cancer: CYFRA 21.1. *Br J Cancer* **69**, 525-528 (1994)
- Sugama Y, Kitamura S, Kawai T, Ohkubo A, Hasegawa S, Kuriyama T, Kato H, Fukuoka M, Ohkawa J: Clinical usefulness of CYFRA assay in diagnosing lung cancer: Measurement of serum cytokeratin fragment. *Jpn J Cancer Res* **85**, 1178-1184 (1994)
- Petersen G, Song D, Hügler-Dörr B, Oldenburg I, Bautz EKF: Mapping of linear epitopes recognized by monoclonal antibodies with gene-fragment phage display libraries. *Mol Gen Genet* **249**, 425-431
- Dittadi R, Barioli P, Gion M, Mione R, Barichello M, Capitanio G, Cocco G, Cazzolato G, De Biasi F, Praturlon S, Antinozzi R, Gianneo E: Standardization of assay for cytokeratin -related tumor marker CYFRA 21.1 in urine samples. *Clin Chemistry* **42**, 1634-1638 (1996)
- Höchtlen-Vollmar W, Gruber R, Bodenmüller H, Felber E, Lindemann F, Passlick B, Schlimok G, Pantel K, Riethmüller G: Occult epithelial tumor cells detected in bone marrow by an enzyme immunoassay specific for cytokeratin 19. *Int.J Cancer* **70**, 396-400 (1997)
- Stigbrand T, Andres C, Bellanger L, Bishr Omary M, Bodenmüller H, Bonfrer H, Brundell J, Einarsson R, Erlandsson A, Johansson A, Leca JF, Levi M, Meier T, Nap M, Nustad K, Seguin P, Sjödin A, Sundström B, Van Dalen A, Wiebelhaus E, Wiklund B, Årlestig L, Hilgers J: Epitope specificity of 30 monoclonal antibodies against cytokeratin antigens: The ISOBM TD5-1 Workshop. *Tumor Biol* **19**, 132-152 (1998)

Cat. No. 65010