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BM2275P Monoclonal Antibody to Cytokeratin 18 - Purified

Alternate names: CK18, CYK18, Cell proliferation-inducing gene 46 protein, Cytokeratin-18, K18, KRT18, Keratin 18, Keratin type I cytoskeletal 18, Keratin-18

Quantity: 50 µg

Background: Cytokeratin 18 is an acidic keratin which is found primarily in non squamous epithelia and is present in a majority of adenocarcinomas and ductal carcinomas but not in squamous cell carcinomas. Cytokeratin 18 exists in combination with Cytokeratin 8, a basic keratin. Hepatocellular carcinomas have been reportedly defined by the use of antibodies that recognize only Cytokeratins 8 and 18.

Uniprot ID: P05783

NCBI: NP_000215.1

GeneID: 3875

Host / Isotype: Mouse / IgG1

Recommended Isotype Controls: SM10P (for use in human samples), SM20P (for use in rat samples), AM03095PU-N

Clone: Ks18.04

Immunogen: Human keratin K18 from HeLa cytoskeletal preparation

Format:
State: Lyophilized purified Ig fraction
Purification: Affinity Chromatography on Protein A
Buffer System: PBS, pH 7.4
Preservatives: 0.09% Sodium azide
Stabilizers: 0.5% BSA
Reconstitution: Restore in 1.0 ml distilled water.

Applications:
Western blot.
Immunohistochemistry on Frozen and Paraffin Sections: 1/20 with PBS.
Microwave treatment is recommended.
Incubation time: 1h at 37°C, extended with paraffin sections (overnight at 2-8°C).
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: Ks 18.04 represents an excellent marker to discriminate simple epithelia from those of different origin.
Tumors specifically detected: all adenocarcinoma; mammary carcinoma, urinary bladder carcinoma, undifferentiated carcinoma, cervix carcinoma, hepatocellular carcinoma.
Polypeptide reacting: Mr 45 000 polypeptide (human keratin K18) of all simple type epithelia and basal cells of many squamous, nonepidermal epithelia.
Tested Reactivities on Cultured Cell Lines: HeLa and MCF-7.

Species Reactivity: **Tested:** Human, Mouse, Rat, Bovine, Porcine, Canine, Hamster, Sheep, Fish (Trout) and Zebrafish.

Storage:

Store lyophilized at 2-8°C for 6 months or at -20°C long term.
After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

Product Citations:

Purchased from Acris:

1. Sharma AD, Cantz T, Richter R, Eckert K, Henschler R, Wilkens L, et al. Human cord blood stem cells generate human cytokeratin 18-negative hepatocyte-like cells in injured mouse liver. Am J Pathol. 2005 Aug;167(2):555-64. PubMed PMID: 16049339.
2. Trowe MO, Airik R, Weiss AC, Farin HF, Foik AB, Bettenhausen E, et al. Canonical Wnt signaling regulates smooth muscle precursor development in the mouse ureter. Development. 2012 Sep;139(17):3099-108. doi: 10.1242/dev.077388. Epub 2012 Jul 25. PubMed PMID: 22833126.

Originator or purchased from resellers:

1. Bártek J, Vojt□sek B, Stasková Z, Bártková J, Kerekés Z, Rejthar A, et al. A series of 14 new monoclonal antibodies to keratins: characterization and value in diagnostic histopathology. J Pathol. 1991 Jul;164(3):215-24. PubMed PMID: 1716305.
2. Lauerová L, Kovarik J, Bártek J, Rejthar A, Vojt□sek B. Novel monoclonal antibodies defining epitope of human cytokeratin 18 molecule. Hybridoma. 1988 Oct;7(5):495-504. PubMed PMID: 2461901.
3. Markl J, Winter S, Franke WW: The catalog and the expression complexity of cytokeratins in a lower vertebrate: Biochemical identification of cytokerations in a teleost fish, the rainbow trout. Eur. J. Cell Biol. 50, 1-16 (1989)
4. Moll R, Franke WW, Schiller DL, Geiger B, Krepler R. The catalog of human cytokeratins: patterns of expression in normal epithelia, tumors and cultured cells. Cell. 1982 Nov;31(1):11-24. PubMed PMID: 6186379.
5. Gomi H, Yokoyama T, Fujimoto K, Ikeda T, Katoh A, Itoh T, et al. Mice devoid of the glial fibrillary acidic protein develop normally and are susceptible to scrapie prions. Neuron. 1995 Jan;14(1):29-41. PubMed PMID: 7826639.
6. Bantel H, Ruck P, Gregor M, Schulze-Osthoff K. Detection of elevated caspase activation and early apoptosis in liver diseases. Eur J Cell Biol. 2001 Mar;80(3):230-9. PubMed PMID: 11322387.
7. Stumptner C, Fuchsbichler A, Heid H, Zatloukal K, Denk H. Mallory body--a disease-associated type of sequestosome. Hepatology. 2002 May;35(5):1053-62. PubMed PMID: 11981755.
8. Ikenouchi J, Matsuda M, Furuse M, Tsukita S. Regulation of tight junctions during the epithelium-mesenchyme transition: direct repression of the gene expression of claudins/occludin by Snail. J Cell Sci. 2003 May 15;116(Pt 10):1959-67. Epub 2003 Mar 26. PubMed PMID: 12668723.
9. Schaffeld M, Knappe M, Hunzinger C, Markl J. cDNA sequences of the authentic keratins 8 and 18 in zebrafish. Differentiation. 2003 Jan;71(1):73-82. PubMed PMID: 12558605.
10. Zatloukal B, Kufferath I, Thueringer A, Landegren U, Zatloukal K, Haybaeck J. Sensitivity and specificity of in situ proximity ligation for protein interaction analysis in a model of steatohepatitis with Mallory-Denk bodies. PLoS One. 2014 May 5;9(5):e96690. doi: 10.1371/journal.pone.0096690. eCollection 2014. PubMed PMID:

24798445.