

BM5044**Monoclonal Antibody to Cytokeratin 8 - Purified****Alternate names:**

CK8, CYK8, Cytokeratin endo A, Cytokeratin-8, K8, KRT8, Keratin, Keratin-8, type II cytoskeletal 8

Quantity:

50 µg

Background:

Cytokeratins are a subfamily of intermediate filament proteins and are characterized by a remarkable biochemical diversity, represented in 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 cytokeratin polypeptides 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.

Cytokeratin 8 belongs to the type B (basic) subfamily of high molecular weight keratins and exists in combination with cytokeratin 18. Cytokeratin 8 is primarily found in the non squamous epithelia and is present in majority of adenocarcinomas and ductal carcinomas. It is absent in squamous cell carcinomas. Hepatocellular carcinomas are defined by the use of antibodies that recognize only cytokeratin polypeptides 8 and 18.

Uniprot ID:

[P05787](#)

NCBI:

[NP_002264.1](#)

GeneID:

[3856](#)

Host / Isotype:

Mouse / IgG1

Recommended Isotype Controls:

SM10P (for use in human samples), SM20P (for use in rat samples), AM03095PU-N

Clone:

Ks8.7

Immunogen:

Cytoskeletal proteins from cultured HeLa cells

Format:

State: Lyophilized purified IgG fraction

Purification: Affinity Chromatography on Protein A

Buffer System: Final solution contains 0.09% Sodium Azide and 0.5% BSA in PBS buffer, pH 7.4

Reconstitution: Restore in 1 ml distilled water.

Applications:

Western blot.

Immunocytochemistry.

Immunohistochemistry on Frozen Sections.

Immunohistochemistry on Paraffin-Embedded Sections (After microwave treatment).

Recommended Dilutions: When reconstituted with 1 ml distilled water, dilute further 1/10 for immunohistochemistry.

Incubation time: 1 h at RT.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

Ks 8.7 represents an excellent marker to discriminate simple epithelia from those of different origin.

Polypeptide Reacting: Mr 52500 polypeptide (keratin K8; formerly also designated cytokeratin 8) of human epithelia.

Tumors Specifically Detected: All adeno-CA tested; undifferentiated CA; cervix CA; hepatocellular CA.

Tested Reactivities on cultured cell lines: MCF-7, RT 112, PLC.

Species: Human, Mouse, Rat, Tupaia belangeri, Monodelphis domestica, Hamster.

Negative with Bovine and Pig.

Other species not tested.

Storage:

Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

General Readings:

1. Bártek J, Vojtšek 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. 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.
3. Osborn M, van Lessen G, Weber K, Klöppel G, Altmannsberger M: Methods in Laboratory Investigation. Differential diagnosis of gastrointestinal carcinomas by using monoclonal antibodies specific for individual keratin polypeptides. *Lab. Investigation* 55,4, 497-504 (1986)
4. 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.
5. Stumptner C, Fuchsbichler A, Heid H, Zatloukal K, Denk H: Mallory body - a disease-associated type of sequestosome. *Hepatology* 35, 1053-1062 (2002)