

## Keratin 5 Ab-1 (Clone XM26)

### Mouse Monoclonal Antibody

Cat. #MS-1896-S0, -S1, or -S (0.1ml, 0.5ml, or 1.0ml Supernatant)

Cat. #MS-1896-R7 (7.0ml) (Ready-to-Use for Immunohistochemical Staining)

Cat. #MS-1896-PCS (5 Slides) (Positive Control for Histology)

**Description:** Twenty human keratins are divided into acidic (pI <5.7) and basic (pI >6.0) subfamilies. Members of the acidic and basic subfamilies are found together in pairs. The composition of keratin pairs varies with the epithelial cell type, stage of differentiation, cellular growth environment, and disease state. Many studies have shown the usefulness of keratins as markers in cancer research and tumor identification. Point mutations in cytokeratin-5 gene may cause Epidermolysis Bullosa Simplex. It is expressed in most epithelial and biphasic mesotheliomas.

**Mol. Wt. of Antigen:** 58kDa

**Epitope:** C-terminal

**Species Reactivity:** Human. Others not known.

**Clone Designation:** XM26

**Ig Isotype / Light Chain:** IgG<sub>1</sub> / κ

**Immunogen:** Recombinant protein corresponding to C-terminal 103 aa of cytokeratin 5

### Applications and Suggested Dilutions:

- Immunohistology (Formalin/paraffin)  
(Ab 1:20 for 30 min at RT)
- \* [Staining of formalin-fixed tissues REQUIRES boiling tissue sections in 10mM citrate buffer, pH 6.0, (**NEOMARKERS'** Cat. #AP-9003), for 10-20 min followed by cooling at RT for 20 min.]

The optimal dilution for a specific application should be determined by the investigator.

**Positive Control:** Mesothelioma

**Cellular Localization:** Cytoplasmic

### Supplied As:

Tissue culture supernatant with 0.09% sodium azide,  
or

Prediluted antibody which is ready-to-use for staining of formalin-fixed, paraffin-embedded tissues.

### Storage and Stability:

Store vial at 4°C. When stored at 2-8°C, this antibody is stable for 24 months.

### Suggested References:

1. Clover J, et al. (1997) *Histopathol*, 31:140-143.
2. Moll R, et al. (1982) *Cell*, 31:11-24.
3. Lane EB, et al. *Annals of the New York Academy of Sciences*, 1985, 455:241-58.
4. Cury P M, et al. (200 ) *Mod Pathol*, 13:107-12.
5. *Mod. Pathol.* 2002 Jan; 15 (1): 6-10.

### Limitations and Warranty:

Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. NeoMarkers is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

### Material Safety Data:

This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

### For Research Use Only



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#### *Additional suggested References:*

1. Alsanjari N; Lynch MJ; Fisher C; Parkinson MC. Vesical clear cell adenocarcinoma. V. Nephrogenic adenoma: a diagnostic problem. *Histopathology*, 1995, 27(1):43-9.
2. Heatley M; Maxwell P; Whiteside C; Toner P. Cytokeratin intermediate filament expression in benign and malignant breast disease. *Journal of Clinical Pathology*, 1995, 48(1):26-32.
3. Mooi WJ; Deenik W; Peterse JL; Hogendoorn PC. Keratin immunoreactivity in melanoma of soft parts (clear cell sarcoma). *Histopathology*, 1995, 27(1):61-5.
4. Nouri AM; Hussain RF; Oliver RT. Epidermal growth factor-induced protection of tumour cell susceptibility to cytolysis. *European Journal of Cancer*, 1995, 31A(6):963-9.
5. Ogden GR; Chisholm DM; Green M; Cowpe JG; Lane EB. Influence of temperature on long-term keratin immunoreactivity for oral exfoliative cytology. *Analytical and Quantitative Cytology and Histology*, 1995, 17(1):35-8.
6. Ramnarain ND; Walker NP; Markey AC. Basal cell carcinoma: rapid techniques using cytokeratin markers to assist treatment by micrographic (Mohs') surgery. *British Journal of Biomedical Science*, 1995, 52(3):184-7.
7. Ansai S; Katagata Y; Yoshikawa K; Hashimoto H; Hozumi Y; Kondo S; Aso K. An immunohistochemical study of sebaceous carcinoma with anti-keratin monoclonal antibodies: comparison with other skin cancers. *Journal of Dermatology*, 1994, 21(8):553-9.
8. Ansai SI; Katagata Y; Yoshikawa KI; Hozumi Y; Aso K. Keratin specificity analyses of eight anti-keratin monoclonal antibodies, and their immunostaining patterns in normal skin using formalin-fixed and paraffin-embedded tissue specimens. *Archives for Dermatological Research. Archiv fur Dermatologische Forschung*, 1993, 285(1-2):6-12.
9. Rudland PS; Leinster SJ; Winstanley J; Green B; Atkinson M; Zakhour HD. Immunocytochemical identification of cell types in benign and malignant breast diseases: variations in cell markers accompany the malignant state. *Journal of Histochemistry and Cytochemistry*, 1993, 41(4):543-53.
10. Ogden GR; McQueen S; Lane EB; Green MW; Hopwood D; Chisholm DM. Cytokeratin expression in oral exfoliative cytology: effect of temperature and fixation. *Histochemical Journal*, 1992, 24(3):176-9.
11. Perkins W; Campbell I; Leigh IM; MacKie RM. Keratin expression in normal skin and epidermal neoplasms demonstrated by a panel of monoclonal antibodies. *Journal of Cutaneous Pathology*, 1992, 19(6):476-82.
12. Rudland PS. Histochemical organization and cellular composition of ductal buds in developing human breast: evidence of cytochemical intermediates between epithelial and myoepithelial cells. *Journal of Histochemistry and Cytochemistry*, 1991, 39(11):1471-84.
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15. MacDonald AW; Fletcher A. Expression of cytokeratin in the epithelium of dentigerous cysts and odontogenic keratocysts: an aid to diagnosis [see comments]. *J of Clinical Pathol*, 1989, 42(7):736-9.
16. Pilkington GR; Pallesen G. Phenotypic characterization of non-haemopoietic small cell tumours of childhood with monoclonal antibodies to leucocytes, epithelial cells and cytoskeletal proteins. *Histopathology*, 1989, 14(4):347-57.
17. Rudland PS; Hughes CM. Immunocytochemical identification of cell types in human mammary gland: variations in cellular markers are dependent on glandular topography and differentiation. *Journal of Histochem and Cytochem*, 1989, 37:1087-100.
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19. Holm-Nielsen P; Pallesen G. Expression of segment-specific antigens in the human nephron and in renal epithelial tumors. *Apmis. Supplementum*, 1988, 4:48-55.
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21. Warburton MJ; Ferns SA; Hughes CM; Sear CH; Rudland PS. Generation of cell types with myoepithelial and mesenchymal phenotypes during the conversion of rat mammary tumor epithelial stem cells into elongated cells. *Journal of the National Cancer Institute*, 1987, 78(6):1191-201.
22. Warburton MJ; Ferns SA; Hughes CM; Rudland PS. Characterization of rat mammary cell types in primary culture: lectins and antisera to basement membrane and intermediate filament proteins as indicators of cellular heterogeneity. *Journal of Cell Science*, 1985, 79:287-304.
23. *Am Hum Genet* 2006;78:510

