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AM10028PU-N Monoclonal Antibody to pan Cytokeratin - Purified

Alternate names: Cytokeratin pan-reactive, pan Keratin

Quantity: 1 ml

Concentration: 0.2 mg/ml

Background: Cytokeratins are intermediate filament keratins found in the intracytoplasmic cytoskeleton of epithelial tissue There are two types of Cytokeratins: the low weight, acidic type I cytokeratins and the high weight, basic or neutral type II. Cytokeratins are usually found in pairs comprising a type I Cytokeratin and a type II cytokeratin. The high molecular weight cytokeratins, which are the basic or neutral cytokeratins, comprise subtypes CK1(67), CK2(65.5), CK3(64), CK4(59), CK5(58), CK6(56), CK7(54), CK8(52.5) and CK9. The low molecular weight cytokeratins, which are the acidic cytokeratins, comprise subtypes CK10 (56.5), CK12 (56), CK13 (53), CK14 (50), CK16 (48), CK17 (46), CK18 (45), CK19 (48) and CK20 (46).

Host / Isotype: Mouse / IgG1

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

Clone: AE1/AE3

Immunogen: Human epidermal keratin.
Remarks: Molecular weight of antigen: CK1 (67), CK2 (65.5), CK3 (64), CK4 (59), CK5 (58) CK6 (56) CK8 (52.5). + CK1 (67), CK2 (65.5), CK3 (64), CK4 (59), CK5 (58) CK6 (56) CK8 (52.5).

Format:
State: Liquid purified IgG fraction
Purification: Protein A Chromatography
Buffer System: PBS, pH 7.4
Preservatives: 0.05% Sodium Azide
Stabilizers: 1% BSA

Applications:
Immunocytochemistry.
Immunohistochemistry on Frozen and Formalin-Fixed Paraffin-Embedded Sections and cell Smears.
Dilute concentrated antibody at 1/50-1/100, use streptavidin~biotin system or polymer system, incubate 30 minutes at room temperature.
For FFPE tissue sections antigen retriever like trypsin is required.
Recommended Positive Control: Human skin, lung ca.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: *AE 1/AE3* represents an excellent marker for distinguishing carcinomas from non-epithelial tumors; reacts with all epithelium-derived tumors and their neoplasms. Decorates the majority of type I and type II keratins (formerly also designated cytokeratins).
This antibody stains cytokeratins present in normal and abnormal human tissues and has shown high sensitivity in the recognition of epithelial cells and carcinomas.

This antibody *AE 1/AE 3* recognizes Low Molecular Weight Cytokeratins (CK 10 (56.5), CK14 (50), CK15 (50), CK16 (48) and CK19 (40) of the acidic family and CK1 (67), CK2 (65.5), CK3 (64), CK4 (59), CK5 (58) CK6 (56) and CK8 (52.5).
Cellular Localization: Cytoplasmic.

Species Reactivity: **Tested:** Human, Monkey, Bovine, Porcine, Rat, Mouse, Rabbit and Chicken.

Storage: Store 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:

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Garin-Chesa, P., Rettig, J. and Melamed, R.: Expression of cyto- keratin in normal and neoplastic colonic epithelial cells: Implications for cellular differentiation and carcinogenesis. Am. J. Surg. Pathol. 10, 829-835 (1986)
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Spagnolo, D.V., Michie, S.A., Crabtree, G.S., Warnke, R.A. and Rouse, R.V.: Monoclonal anti-keratin (AE1) reactivity in routinely processed tissue from 166 human neoplasms. Am. J. Clin. Pathol. 84, 697-704 (1985)
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Sun, T.-T., Tseng, S.C.G., Huang, A.J.W., Cooper, D., Lynch, M.H., Weiss, R.A., Eichner, R., A. and Schermer, A.: Monoclonal antibody studies of keratin expression: A review. In: Intermediate Filaments. The New York Acad. Sci. (E. Wang, D. Fischmann, R. Liem, and T.-T. Sun, eds.) 455, 307-329 (1985)
Tseng, S.C.G., Jarvinen, M., Nelson, W.G., Huang, J.-W., Woodcock-Mitchell, J. and Sun, T.-T.: Correlation of specific keratins with different types of epithelial differentiation: Monoclonal antibody studies. Cell 30, 361-372 (1982)
Woodcock-Mitchell, J., Eichner, R., Nelson, W.G. and Sun, T.-T.: Immunolocalization of

keratin polypeptides in human epidermis using monoclonal antibodies. J. Cell Biol. 95, 580-588 (1982)
Weiss, R.A., Eichner, R. and Sun, T.-T.: Monoclonal antibody analyis of keratin expression in epidermal diseases: A 48 kD and a 56 kD keratin as molecular markers for hyperproliferating keratinocytes. J. Cell Biol. 98, 1397-1406 (1984)
Weiss, R.A., Guillet, G.Y., Freedberg, I.M., Small, E.-A., Farmer, E.R., Weiss, M. and Sun, T.-T.: The use of monoclonal antibody to keratin in human epidermal disease: Alterations in immunohistoche- mical staining pattern. J. Invest. Dermatol. 81, 2279-2286 (1983)