Keratin, Pan Ab-3 (Clone Lu-5)

Mouse Monoclonal Antibody

Cat. #MS-744-A0, -A1, or -A (0.1ml, 0.5ml, or 1.0ml)
Cat. #MS-744-R7 (7.0ml) (Ready-to-Use for Immunohistochemical Staining)
Cat. #MS-744-PCS (5 Slides) (Positive Control for Histology)

Please note this data sheet has been changed effective December 8, 2011

Description: Twenty human keratins are resolved with two-dimensional gel electrophoresis 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 diagnosis.

Comments: Ab-3 recognizes the keratins of acidic as well as basic subfamilies. It reacts with keratinized and corneal epidermis, stratified squamous epithelia of internal organs, stratified epithelia, hyperproliferative keratinocytes, and simple epithelia. Ab-3 is a broad spectrum anti pan-keratin antibody, which differentiates epithelial from non-epithelial tumors. Unlike AE1/AE3 pan-keratin antibody, Lu-5 works well with pepsin digestion of formalin-fixed tissues.

Epitope: Not determined

Species Reactivity: Human, Cow, Rat, Chicken, Snake, and Frog. Shows a very wide reactivity in vertebrates.

Clone Designation: Lu-5

Ig Isotype: IgG_1

Immunogen: Lung cancer cell line[1]

Applications and Suggested Dilutions:

- Immunofluorescence
- Immunohistology (Formalin/paraffin)
  (Use Ab at 1:25 to 1:50 for 20 min at RT using UltraVision LP Systems)
  (Staining of formalin/paraffin tissues is enhanced by digestion of tissue sections with pepsin (***NEOMARKERS'*** Cat. #AP-9007) at 1mg/ml Tris-HCl, pH 2.0 for 10-15 min at RT)

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

Positive Control: Skin or squamous cell carcinoma

Cellular Localization: Cytoplasmic

Supplied As:

Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 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.

Key References:

1. Von Overbeck J. *et. al*. Virchows Arch A Pathol Anat Histopathol **1985**; 407 (1):1-12.

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

Lab Vision Corporation
46360 Fremont Blvd.
Fremont, CA 94538-6406, USA
US Toll Free: 1 (800) 522-7270
Phone: +1 (269) 544-5600
Fax: 1 (269) 372-2674
www.thermoscientific.com/labvision

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Thermo Fisher Scientific
Anatomical Pathology
Tudor Road, Manor Park
Runcorn, Cheshire WA7 1TA, UK
Tel: +44 (0) 1928 534 050
Fax: +44 (0) 1928 534 049
sales.ap.uk@thermofisher.com

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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

Additional Key References:

1. Schroder S, Wodzynski A, Padber B. Cytokeratin expression of benign and malignant epithelial gland tumors. An immunohistologic study of 154 neoplasms using 8 different monoclonal cytokeratin antibodies.Pathologe **1996**; 17(6):425-432
2. Mullhaupt B, Gudat F, Epper R, Bianchi L. The common pattern of cytokeratin alteration in alcoholic and cholestatic liver disease is different from that of hepatic liver damage. A study with the panepithelial monoclonal antibody Lu-5. J Hepatol **1993**; 19(1):23-35
3. Moch H, Oberholzer M, Dalquen P, Wegmann W, Gudat F. Diagnostic tools for differentiating between pleural mesothelioma and lung adenocarcinoma in paraffin-embedded tissue PartI: Immunohistochemical findings. Virchows Arch A Pathol Anat Histopathol **1993**; 423(1):19-27
4. Goddard MJ, Wilson B, Grant JW. Comparison of commercially available cytokeratin antibodies in normal and neoplastic adult epithelial and non-epithelial tissues. J Clin Pathol **1991**; 44(8):660-663.
5. Forster C, Bassler R. Comparative immunohistochemical studies of the histopathology of the breast using monoclonal antibodies Lu-5 and b-12. .Pathologe **1991;** 12(2):60-65.
6. Zenklusen HR, weymuth G, Rist M, Mihatsch MJ. Carcinosarcoma of the prostate in combination with adenocarcinoma of the prostate and adenocarcinoma of the seminal vesicles. A case report with immunocytochemical analysis and review of the literature. Cancer **1990** Sep1;66(5):998-1001.
7. Miraliakbari BA, Kovacs K. The Value of a monoclonal anti-epithelial antibody (mAB lu-5) in the differential diagnosis of tumors .Immuno-histochemical study.Oncology **1988**;45(2)98-102
8. Kovacs K, Ryan N, Stefaneanu L. Identification of corticotrophs in the human pituitary with mAB lu-5, a novel immunocytochemical marker.Pathol Res Pract **1987**; 182(6):775-779.
9. Franke WW, Winter S, von Overbeck J, Gudat F,Heitz PU,Stahli C. Identification of conserved,conformation-dependent cytokeratin epitope recognized by monoclonal antibody(Lu-5).Virchows Arch A Pathol Anat Histopathol **1987**;411(2):137-147.
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Lab Vision Corporation
46360 Fremont Blvd.
Fremont, CA 94538-6406, USA
US Toll Free: 1 (800) 522-7270
Phone: +1 (269) 544-5600
Fax: 1 (269) 372-2674
www.thermoscientific.com/labvision

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Fax: +44 (0) 1928 534 049
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