



Cytokeratin 5 (CK5)

Concentrated and Prediluted Monoclonal Antibody

Control Number: 901-234-091506

Catalog Number:	CM 234 A, B, C	PM 234 AA
Description:	0.1, 0.5, 1.0 ml, concentrated	6.0 ml, prediluted
Dilution:	1:50 -1:100	Ready-to-use
Diluent:	Van Gogh Yellow	N/A

Pretreatment Protocol cont'd:

Allow solution to cool for 20 minutes then wash in distilled water.

Avidin-Biotin Block is recommended:

1. Apply Avidin solution for 10 minutes and wash with TBS wash buffer.
2. Apply Biotin solution for 10 minutes and wash with TBS wash buffer.

Protein Block:

Incubate for 10-15 minutes at RT with BIOCARE's Background Sniper.

Primary Antibody: Incubate for 30 minutes at RT.

Link: Incubate for 10 minutes at RT with a link

Label: Incubate for 10 minutes at RT with a label.

Chromogen:

Incubate for 5 minutes at RT when using BIOCARE's DAB. - **OR** - Incubate for 10 minutes at RT when using BIOCARE's Vulcan Fast Red.

Technical Note:

This antibody has been standardized with BIOCARE's 4 plus detection system. It can also be used on an automated staining system and with other BIOCARE polymer detection kits. Use TBS buffer for washing steps.

Performance Characteristics:

The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to: fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of BIOCARE products. Ultimately, it is the responsibility of the investigator to determine optimal conditions. These products are tools that can be used for interpretation of morphological findings in conjunction with other diagnostic tests and pertinent clinical data by a qualified pathologist.

Quality Control:

Refer to NCCLS Quality Assurance for Immunocytochemistry approved guidelines, December 1999 MM4-A Vol.19 No.26 for more information about Tissue Controls.

Precautions:

This antibody contains less than 0.1% sodium azide. Concentrations less than 0.1% are not reportable hazardous materials according to U.S. 29 CFR 1910.1200, OSHA Hazard communication and EC Directive 91/155/EC.

Sodium azide (NaN₃) used as a preservative is toxic if ingested. Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. (Center for disease control, 1976, National Institute of Occupational Safety and Health, 1976)

Specimens, before and after fixation and all materials exposed to them, should be handled as if capable of transmitting infection and disposed of with proper precautions. Never pipette reagents by mouth and avoid contacting the skin and mucous membranes with reagents and specimens. If reagents or specimens come in contact with sensitive areas, wash with copious amounts of water.

Microbial contamination of reagents may result in an increase in nonspecific staining. Incubation times or temperatures other than those specified may give erroneous results. The user must validate any such change. The MSDS is available upon request.

Troubleshooting:

Follow the antibody specific protocol recommendations according to data sheet provided. If atypical results occur, contact BIOCARE's Technical Support at 1-800-542-2002.

Limitations and Warranty:

There are no warranties, expressed or implied, which extend beyond this description. BIOCARE is not liable for property damage, personal injury, or economic loss caused by this product.

Intended Use:

For In Vitro Diagnostic Use

Summary and Explanation:

CK5 is a 58kD protein that is closely related to CK6. ELISA was carried out to screen for antibodies that were positive for CK5 and negative with CK6. Results showed that the XM26 clone was positive for CK5 protein and was negative for the CK6 protein. CK5 tissue distribution is in many non-keratinizing stratified squamous epithelia such as tongue mucosa, basal epithelia hair follicles, trachea, as well as basal cells in prostate glands and myoepithelial cells in mammary glands. CK5 is also expressed in most epithelial and biphasic mesotheliomas. CK5 has also been noted in large cell carcinoma and pulmonary squamous cell carcinomas

Principle of Procedure:

Antigen detection, in tissues and cells, is a multi-step immunohistochemical process. The initial step binds the primary antibody to its specific epitope. After labeling the antigen with a primary antibody, a universal, affinity-purified, secondary antibody is added to bind to the primary antibody. An enzyme label is then added to bind to the secondary antibody; this detection of the bound antibody is evidenced by a colorimetric reaction.

Source: Mouse monoclonal

Species Reactivity: Human; others not tested

Clone: XM26

Isotype: IgG1, kappa

Total Protein Concentration: ~10 mg/ml. Call for lot specific Ig Concentration.

Epitope/Antigen: CK5

Cellular Localization: Cytoplasmic

Positive Control: Normal prostate

Normal Tissue: Normal skin or prostate

Abnormal Tissue: Mesothelioma

Known Applications:

Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

Supplied As: Buffer with protein carrier and preservative.

Storage and Stability:

Store at 2°C to 8°C. Do not use after expiration date printed on vial. If reagents are stored under conditions other than those specified in the package insert, they must be verified by the user. Diluted reagents should be used promptly; any remaining reagent should be stored at 2°C to 8°C.

Protocol Recommendations

Peroxide Block:

If using an HRP system, block for 5 minutes with BIOCARE's PEROXIDAZED 1.

Pretreatment Solution (recommended): Reveal

Pretreatment Protocol:

Heat Retrieval Method:

Retrieve sections under pressure using BIOCARE's Decloaking Chamber, followed by a wash in distilled water. Alternatively, steam tissue sections for 45-60 minutes.





Cytokeratin 5 (CK5)

Concentrated and Prediluted Monoclonal Antibody

Control Number: 901-234-091506

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9001:2000
CERTIFIED

References:

1. Bocker W, Moll R, Poremba C, Holland R, Van Diest PJ, Dervan P, Burger H, Wai D, Ina Diallo R, Brandt B, Herbst H, Schmidt A, Lerch MM, Buchwallow IB. Common adult stem cells in the human breast give rise to glandular and myoepithelial cell lineages: a new cell biological concept. *Lab Invest* 2002 Jun;82(6):737-46
2. Miettinen M, Sarlomo-Rikala M. Expression of calretinin, thrombomodulin, keratin 5, and mesothelin in lung carcinomas of different types: an immunohistochemical analysis of 596 tumors in comparison with epithelioid mesotheliomas of the pleura. *Am J Surg Pathol* 2003 Feb;27(2):150-8
3. Center for Disease Control Manual. Guide: Safety Management, NO. CDC-22, Atlanta, GA. April 30, 1976 "Decontamination of Laboratory Sink Drains to Remove Azide Salts."
4. National Committee for Clinical Laboratory Standards(NCCLS). Protection of laboratory workers from infectious diseases transmitted by blood and tissue; proposed guideline. Villanova, PA 1991;7(9). Order code M29-P.



Cytokeratin 5 (CK5)
Prediluted Monoclonal Antibody
Control Number: 901-2341P-091908

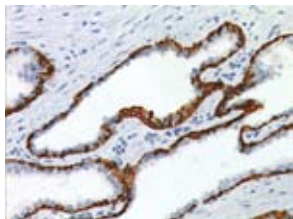
Catalog Number: IP 234 G10
Description: 10 ml, predilute

Intended Use:

For In Vitro Diagnostic Use

Summary and Explanation:

CK5 is a 58kD protein that is closely related to CK6. ELISA was carried out to screen for antibodies that were positive for CK5 and negative with CK6. Results showed that the XM26 clone was positive for CK5 protein and was negative for the CK6 protein. CK5 tissue distribution is in many non-keratinizing stratified squamous epithelia such as tongue mucosa, basal epithelia hair follicles, trachea, as well as basal cells in prostate glands and myoepithelial cells in mammary glands. CK5 is also expressed in most epithelial and biphasic mesotheliomas. CK5 has also been noted in large cell carcinoma and pulmonary squamous cell carcinomas



Normal prostate stained with CK5 antibody monoclonal antibody.

Principle of Procedure:

Antigen detection, in tissues and cells, is a multi-step immunohistochemical process. The initial step binds the primary antibody to its specific epitope. After labeling the antigen with a primary antibody, a universal, affinity-purified, secondary antibody is added to bind to the primary antibody. An enzyme label is then added to bind to the secondary antibody; this detection of the bound antibody is evidenced by a colorimetric reaction.

Source: Mouse monoclonal

Species Reactivity: Human; others not tested

Clone: XM26

Isotype: IgG1, kappa

Antibody Category: Carcinoma

Epitope/Antigen: CK5

Total Protein Concentration: ~10 mg/ml. Call for lot specific Ig Concentration.

Cellular Localization: Cytoplasmic

Positive Control: Normal prostate

Normal Tissue: Normal skin or prostate

Abnormal Tissue: Mesothelioma

Known Applications:

Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

Supplied As: Buffer with protein carrier and preservative.

Storage and Stability:

Store at 2°C to 8°C. Do not use after expiration date printed on vial. If reagents are stored under conditions other than those specified in the package insert, they must be verified by the user. Diluted reagents should be used promptly; any remaining reagent should be stored at 2°C to 8°C.

Protocol Recommendations

Pretreatment Solution (recommended): Diva

Pretreatment Protocol:

Heat Retrieval Method:

Retrieve sections under pressure using BIOCARE's Decloaking Chamber as followed by a wash in distilled water. Alternatively, steam tissue sections for 45-60 minutes. Allow solution to cool for 20 minutes then wash in distilled water.

Peroxide Block:

If using an HRP system, block for 5 minutes with BIOCARE's PEROXIDAZED 1.

Primary Antibody: Incubate for 30 minutes at RT.

Secondary: Incubate for 10 minutes at RT.

Tertiary: Incubate for 10 minutes at RT.

Chromogen:

Incubate for 5 minutes with DAB at RT.

Counterstain:

1. Rinse with deionized water. 2. Incubate for 5 minutes with automated Hematoxylin. 3. Rinse with TBS Buffer for 1 minute followed by a rinse with deionized water.

Quality Statement:

BIOCARE protocols have been standardized using in-house antibodies, detection and accessory reagents for use on the *intelliPATH* FLX automated stainer. Recommended staining protocols are specified in the datasheet of the antibody of interest. Pre-optimized *intelliPATH* FLX protocols with preset parameters can be displayed, printed and edited according to the procedure in the operator's manual. Refer to the operator's manual for additional instruction to navigate *intelliPATH* FLX software and stainer. Use TBS for washing steps unless otherwise specified.

Performance Characteristics:

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Prediluted Monoclonal Antibody

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Troubleshooting:

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Limitations and Warranty:

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References:

1. Bocker W, Moll R, Poremba C, Holland R, Van Diest PJ, Dervan P, Burger H, Wai D, Ina Diallo R, Brandt B, Herbst H, Schmidt A, Lerch MM, Buchwallow IB. Common adult stem cells in the human breast give rise to glandular and myoepithelial cell lineages: a new cell biological concept. *Lab Invest* 2002 Jun;82(6):737-46
2. Miettinen M, Sarlomo-Rikala M. Expression of calretinin, thrombomodulin, keratin 5, and mesothelin in lung carcinomas of different types: an immunohistochemical analysis of 596 tumors in comparison with epithelioid mesotheliomas of the pleura. *Am J Surg Pathol* 2003 Feb;27(2):150-8
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