



CD57 (Natural Killer Cell)
Concentrated and Prediluted Monoclonal Antibody
Control Number: 901-007-040209

Catalog Number:	CM 007 A, B, C	PM 007 AA
Description:	0.1, 0.5, 1.0 ml, concentrated	6.0, prediluted
Dilution:	1:50 -1:100	Ready-to-use
Diluent:	Van Gogh Yellow	N/A

Intended Use:
For In Vitro Diagnostic Use

Summary and Explanation:
This antibody recognizes a 110kDa protein on human lymphocyte cell surface that is identified as CD57. NK-1 marks a subset of lymphocytes known as natural killer (NK) cells. Follicular center cell lymphomas often contain many NK cells within the neoplastic follicles. NK-1 reportedly also reacts with a variety of cell types in non-lymphoid tissues. NK-1 stains neuroendocrine cells and their respective tumors.

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 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
Clone: NK1

Isotype: IgM/kappa
Total Protein Concentration: ~10 mg/ml. Call for lot specific Ig Concentration.
Epitope/Antigen: CD57

Cellular Localization: Cell membrane in germinal centers of lymph nodes or tonsils
Positive Control: Single tonsil
Normal Tissue: Tonsil
Abnormal Tissue: Prostate and thyroid carcinomas

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): Diva

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

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 probe.

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

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 MACH3. 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.

References:
1. Sanno N, Itoh J, Teramoto A, Itoh Y, Hori S, Osamura RY. Immunohistochemical detection of human natural killer cell like immunoreactivity in human pituitary adenomas, using monoclonal antibody NK-1. J Neurooncol, Oct;35(1):29-38, 1997.
2. Papadimitriou CS, Bai MK, Kotsianti AJ, Costopoulos JS, Hytiroglou P. Phenotype of Hodgkin and sternberg-Reed cells and expression of CD57 (Leu7) antigen. Leuk Lymphoma, Dec;20(1-2):125-130, 1995.





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References cont'd:

3. Atochina OV, Aksenova NN, Neustroev AP, Ivanov VA. Monoclonal antibodies to the HNK-1 antigen of human natural killers. *Tsitologiya*, 36(9-10):1006-1011, 1994.
4. Liu XH; Yoshiki T; Kokuho M; Okada Y; Tomoyoshi T; Higuchi K. The prognostic value of the HNK-1 (Leu-7) antigen in prostatic cancer--an immunohistochemical study. *Hinyokika Kyo. Acta Urologica Japonica*, 1993, 39 (5):439-44.
5. Kamel OW, Gelb AB, Shibuya RB, Warnke RA. Leu 7 (CD57) reactivity distinguishes nodular lymphocyte predominance Hodgkin's disease from nodular sclerosing Hodgkin's disease, T-cell-rich B-cell lymphoma and follicular lymphoma. *Am J Pathol*, Feb;142(2):541-546, 1993.
6. Ghali VS; Jimenez EJ; Garcia RL. Distribution of Leu-7 antigen (HNK-1) in thyroid tumors: its usefulness as a diagnostic marker for follicular and papillary carcinomas. *Human Pathology*, 1992, 23(1):21-5.
7. 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."
8. 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.



CD57 (Natural Killer Cell)

Prediluted Mouse Monoclonal Antibody

Control Number: 901-007IP-120309

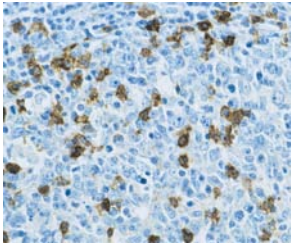
Catalog Number: IP 007 G10
Description: 10 ml, predilute

Intended Use:

For In Vitro Diagnostic Use

Summary and Explanation:

This antibody recognizes a 110kDa protein on human lymphocyte cell surface that is identified as CD57. The CD57 clone NK-1 marks a subset of lymphocytes known as natural killer (NK) cells. Follicular center cell lymphomas often contain many NK cells within the neoplastic follicles. NK-1 reportedly also reacts with a variety of cell types in non-lymphoid tissues. NK-1 stains neuroendocrine cells and their respective tumors.



Tonsil stained with CD57 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, an 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

Clone: NK-1

Isotype: IgM/kappa

Antibody Category: Lymphoma

Epitope/Antigen: CD57

Total Protein Concentration: Call for lot specific Ig Concentration.

Cellular Localization: Cell membrane in germinal centers of lymph nodes or tonsils

Positive Control: Tonsil

Normal Tissue: Tonsil

Abnormal Tissue: Prostate and thyroid carcinomas

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, 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:

Block for 5 minutes at RT.

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:

Rinse with deionized water. Incubate for 5 minutes with automated Hematoxylin. 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:

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:

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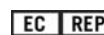
Precautions:

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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.



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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:

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1. Sanno N, Itoh J, Teramoto A, Itoh Y, Hori S, Osamura RY. Immunohistochemical detection of human natural killer cell like immunoreactivity in human pituitary adenomas, using monoclonal antibody NK-1. *J Neurooncol*, Oct;35(1):29-38, 1997.
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