

**Lambda Light Chain (M)**  
Concentrated and Prediluted Monoclonal Antibody  
Control Number: 901-014-101714

ISO  
9001&13485  
CERTIFIED

<b>Catalog Number:</b>	<b>CM 014 A, C</b>	<b>PM 014 AA</b>
<b>Description:</b>	0.1, 1.0 ml, concentrated	6.0 ml, prediluted
<b>Dilution:</b>	1:50-1:100	Ready-to-use
<b>Diluent:</b>	Van Gogh Yellow	N/A

**Intended Use:**

For In Vitro Diagnostic Use

**Summary and Explanation:**

This antibody recognizes lambda light chains of human immunoglobulins. It also recognizes free lambda light chains and Bence-Jones lambda light chains. It does not cross-react with kappa light chains. This antibody is useful in the identification of leukemias, plasmacytomas, and certain non-Hodgkin's lymphomas. The most common feature of these malignancies is the restricted expression of a single light chain class. Demonstration of clonality in lymphoid infiltrates indicates that the infiltrate is clonal and therefore malignant.

**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; others not tested

**Clone:** LcN-2

**Isotype:** IgG2a/kappa

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

**Epitope/Antigen:** Lambda Light Chain

**Cellular Localization:** Cytoplasmic

**Positive Control:** Tonsil

**Normal Tissue:** Tonsil

**Abnormal Tissue:** Myeloma

**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:** 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. Allow solution to cool for 10 minutes then wash in distilled water.

**Protocol Recommendations Cont'd:**

**Protein Block:**

**Optional:** Incubate for 10-15 minutes at RT with Biocare's Background Sniper.

**Primary Antibody:** Incubate for 30 minutes at RT.

**Probe:** Incubate for 10 minutes at RT with a probe.

**Polymer:** Incubate for 10 minutes at RT with a polymer.

**Chromogen:** Incubate for 5 minutes at RT when using Biocare's DAB. - OR - Incubate for 10-20 minutes at RT when using Biocare's Vulcan Fast Red.

**Counterstain:** Counterstain with Hematoxylin. Rinse with deionized water. Apply Tacha's Bluing solution for 1 minute. Rinse with deionized water.

**Technical Note:**

This antibody has been standardized with Biocare's MACH 4 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.

**Limitations:**

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 (NaN<sub>3</sub>) 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.

## Lambda Light Chain (M)

Concentrated and Prediluted Monoclonal Antibody  
Control Number: 901-014-101714

ISO  
9001&13485  
CERTIFIED**References:**

1. Samoszuk MK, Krailo M, Yan QH, Lukes RJ, Parker JW. Limitations of numerical ratios for defining monoclonality of immunoglobulin light chains in B-cell lymphomas. *Diagn Immunol*, 3(3):133-138, 1985.
2. Bray M, Alper MG. Lambda light chain predominance as a sign of emerging lymphoma. *Am. J Clin Pathol*, Oct;80(4):526-528, 1983.
3. Sobol RE, Astarita RW, Chisari FV, Griffiths JC, Royston I. Use of immunoglobulin light chain analysis to detect bone marrow involvement in B-cell neoplasms. *Clin Immunol Immunopathol*, Jul;24(1):139-144, 1982.
4. Falini B, De Solas I, Halverson C, Parker JW, Taylor CR. Double labeled-antigen method for demonstration of intracellular antigens in paraffin-embedded tissues. *J Histochem Cytochem*, Jan;30(1):21-26, 1982.
5. 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."
6. 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.