

## CD99

### Concentrated and Prediluted Rabbit Monoclonal Antibody

Control Number: 902-392-091917

<b>Catalog Number:</b>	<b>ACR 392 A</b>	<b>APR 392 AA</b>
<b>Description:</b>	0.1 ml, concentrated	6.0 ml, prediluted
<b>Dilution:</b>	1:50-1:100	Ready-to-use
<b>Diluent:</b>	Da Vinci Green	N/A

#### Intended Use:

For Research Use Only. Not for use in diagnostic procedures.

#### Summary and Explanation:

CD99 antigen, a 32 kD T-Cell surface glycoprotein, is also known as MIC2, E2, 12E7, HuLy-m6 or FMC29. Studies have shown this antigen is expressed on the cell membrane of some lymphocytes, cortical thymocytes, and granulosa cells of the ovary (2-4). Studies have also shown CD99 is expressed by most pancreatic islet cells, Sertoli cells of the testis and some endothelial cells. Mature granulocytes express limited or no CD99 (3). Engagement of distinct epitopes on CD99 rapidly induces T-cell death by a novel caspase-independent pathway. CD99 is a highly restricted cell surface antigen of Ewing's sarcoma and primitive peripheral neuroectodermal tumors; therefore, CD99 may aid in identifying Ewing's sarcoma and peripheral neuroectodermal tumors and aid in the differential diagnosis of small blue cell tumors (2-3).

**Source:** Rabbit monoclonal

**Species Reactivity:** Human

**Clone:** EP8 (previously known as EPR3097Y)

**Isotype:** IgG

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

**Epitope/Antigen:** Synthetic peptide to residues on the C-terminus

**Cellular Localization:** Membrane and cytoplasmic

**Positive Control:** Pancreas

#### 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.

#### Staining Protocol Recommendations:

**Peroxide Block:** Block for 5 minutes with Biocare's Peroxidized 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.

**Protein Block (Optional):** Incubate for 5-10 minutes at RT with Biocare's Background Punisher.

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

**Probe:** N/A

**Polymer:** Incubate for 20-30 minutes at RT with a secondary-conjugated polymer.

#### Chromogen:

Incubate for 5 minutes at RT with Biocare's DAB - OR - Incubate for 5-7 minutes at RT with Biocare's Warp 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:

This product is provided for Research Use Only (RUO) and is not for use in diagnostic procedures. Suitability for specific applications may vary and it is the responsibility of the end user to determine the appropriate application for its use.

#### Precautions:

1. 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) (5)
2. 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. (6)
3. Microbial contamination of reagents may result in an increase in nonspecific staining.
4. Incubation times or temperatures other than those specified may give erroneous results. The user must validate any such change.
5. Do not use reagent after the expiration date printed on the vial.
6. The SDS is available upon request and is located at <http://biocare.net>.

#### Technical Support:

Contact Biocare's Technical Support at 1-800-542-2002 for questions regarding this product.

#### References:

1. Sandrin MS, *et al.* Expression cloning of cDNA clones encoding the human cell surface proteins HuLy-m6 and FMC29. *Immunogenetics*. 1992; 35(4):283-5.
2. Chan JK, *et al.* The MIC2 antibody 013. Practical application for the study of thymic epithelial tumors. *Am J Surg Pathol*. 1995 Oct; 19(10):1115-23.
3. Robertson PB, *et al.* 013(CD99) positivity in hematologic proliferations correlates with TdT positivity. *Mod Pathol*. 1997 Apr; 10(4):277-82.
4. Soslow RA, *et al.* MIC2, TdT, bcl-2, and CD34 expression in paraffin-embedded high-grade lymphoma/acute lymphoblastic leukemia distinguishes between distinct clinicopathologic entities. *Hum Pathol*. 1997 Oct; 28(10):1158-65.
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. Clinical and Laboratory Standards Institute (CLSI). Protection of Laboratory Workers from Occupationally Acquired Infections; Approved Guideline-Fourth Edition CLSI document M29-A4 Wayne, PA 2014.

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