

## E-Cadherin (RM)

### Concentrated and Prediluted Rabbit Monoclonal Antibody

Control Number: 902-3012-051515

<b>Catalog Number:</b>	<b>ACR 3012 A, C</b>	<b>APR 3012 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>	Renaissance Background Reducing	N/A

#### Intended Use:

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

#### Summary and Explanation:

E-cadherin is a transmembrane glycoprotein that plays a key role in cell-cell adhesion in epithelial tissues (1-2). The adherens junction between epithelial cells is comprised of extracellular domains of E-cadherin from adjacent cells, which interact through a molecular zipper motif. In normal tissues, immunostaining of E-cadherin is localized to the membrane of epithelial cells, consistent with its role in cell adhesion. Immunohistochemical studies have shown E-cadherin to be expressed in breast ductal carcinoma with loss of expression in lobular carcinoma (1-2). As a result, mouse monoclonal anti-E-cadherin [HECD-1] has been used by pathologists to differentiate between ductal and lobular carcinomas of the breast, with currently published sensitivity and specificity of approximately 90% (3). Rabbit monoclonal E-cadherin antibody may combine the best properties of both monoclonal antibodies and rabbit antisera.

#### 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 enzyme labeled polymer is then added to bind to the primary antibody. This detection of the bound antibody is evidenced by a colorimetric reaction.

**Source:** Rabbit monoclonal

**Species Reactivity:** Human; others not tested

**Clone:** EP6 (previously known as EP700Y)

**Isotype:** IgG

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

**Epitope/Antigen:** E-cadherin

**Cellular Localization:** Membrane

**Positive Control:** Normal breast or breast ductal cell carcinoma

#### 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:** Perform heat retrieval using Biocare's Reveal Decloaker. Refer to the Reveal Decloaker product data sheet for specific instructions.

**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 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.

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#### Technical Note:

This antibody has been standardized with Biocare's MACH 2 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) (4)
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. (5)
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. de Deus Moura R, *et al.* Immunohistochemistry applied to the differential diagnosis between ductal and lobular carcinoma of the breast. *Appl Immunohistochem Mol Morphol.* 2013 Jan;21(1):1-12.
2. Dabbs DJ, Bhargava R, Chivukula M. Lobular versus ductal breast neoplasms: the diagnostic utility of p120 catenin. *Am J Surg Pathol.* 2007 Mar;31(3):427-37.
3. Moriya T, *et al.* The role of immunohistochemistry in the differential diagnosis of breast lesions. *Pathology.* 2009 Jan;41(1):68-76.
4. 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."
5. 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.

Produced using Abcam's RabMAB® technology. RabMAB® technology is covered by the following U.S. Patents, No. 5,675,063 and/or 7,429,487.

