**Cytokeratin 14 (CK14)**

**Concentrated Monoclonal Antibody**

**Control Number:** 902-185-090917

<table>
<thead>
<tr>
<th>Catalog Number:</th>
<th>ACR 185 B, C</th>
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<tbody>
<tr>
<td>Description:</td>
<td>0.5, 1.0 ml, concentrated</td>
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<tr>
<td>Dilution:</td>
<td>1:100-1:200</td>
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<tr>
<td>Diluent:</td>
<td>Renaissance Background Reducing</td>
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**Intended Use:**
For Research Use Only. Not for use in diagnostic procedures.

**Summary and Explanation:**
Cytokeratin 14 (CK14) is a type I (acidic) human intermediate filament protein of 50 kDa, which usually pairs with CK5, a type II (basic) cytokeratin. In neoplastic cells, CK14 is a useful marker in identification of basal cell epithelium in prostate and myoepithelium in breast, and has also been shown to be a marker of squamous cell carcinoma in lung and in other histological types of various cancers (1-8). The CK14 monoclonal antibody is usuallycocktailed with CK5 and may be used in a panel of CK5/CK14 + p63 + AMACR (P504S) or CK7/18 to assess neoplasia in prostate biopsies and breast cancers (7, 9, 10).

**Source:** Mouse monoclonal

**Species Reactivity:** Human

**Clone:** LL002

**Isotype:** IgG3

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

**Epitope/Antigen:** CK14

**Cellular Localization:** Cytoplasmic

**Positive Tissue Control:** Prostate

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

**Polymer:** Incubate for 10 minutes at RT with a tertiary 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 (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) (11)
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. (12)
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 MSDS is available upon request and is located at http://biocare.net/support/msds/.

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

**References:**