**MOC-31**  
Concentrated and Prediluted Monoclonal Antibody  
901-403-072417

<table>
<thead>
<tr>
<th>Catalog Number:</th>
<th>CM 403 A, C</th>
<th>PM 403 AA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong></td>
<td>0.1, 1.0 ml, concentrated</td>
<td>6.0 ml, prediluted</td>
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<tr>
<td><strong>Dilution:</strong></td>
<td>1:200-1:400</td>
<td>Ready-to-use</td>
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<tr>
<td><strong>Diluent:</strong></td>
<td>Renoir Red</td>
<td>N/A</td>
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**Intended Use:**  
For In Vitro Diagnostic Use  

**Summary and Explanation:**  
MOC-31, also known as Epithelial specific Antigen/Ep-CAM, consists of two 34 and 39 kDa glycoproteins. These glycoproteins are located on the cell membrane surface and in the cytoplasm of virtually all epithelial cells with the exception of most squamous epithelia, hepatocytes, renal proximal tubular cells, gastric parietal cells and myoepithelial cells. MOC-31 is used in a panel of antibodies as a negative marker for mesothelioma; and a negative stain for MOC-31 has been shown to exclude lung adenocarcinoma. MOC-31 is useful in differentiating tumors of unknown origin in liver cancers and distinguishing cholangiocarcinoma (+) from hepatocellular carcinomas (-). MOC-31 may be advantageous in the demonstration of epithelial cell differentiation in cases where anti-cytokeratins are not clearly positive or in cases where a false positivity for cytokeratin cannot be excluded, such as in submesothelial cells.

**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.

**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:** MOC-31  
**Isotype:** IgG1  
**Epitope/Antigen:** Ep-CAM  
**Cellular Localization:** Membrane  
**Positive Control:** Colon and breast cancers  
**Normal Tissue:** Colon and breast  
**Abnormal Tissue:** Colon, lung and breast cancer  
**Total Protein Concentration:** ~10 mg/ml. Call for lot specific Ig Concentration.

**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): N/A**

**Pretreatment Protocol Cont’d:**  
**Digestion Method:**  
Digest with Pepsin enzyme for 20 minutes at RT or for 5 minutes at 37°C.  
**Protein Block: Optional:** Incubate for 10-15 minutes at RT with Biocare’s Background Sniper.  
**Primary Antibody:** Incubate for 30-45 minutes at RT.  
**Probe:** Incubate for 10 minutes at RT with a Probe.  
**Polymer:** Incubate for 10-20 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.  

**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. 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.
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References: