Cytokeratin 5/6 (CK 5/6)

Concentrated and Prediluted Monoclonal Antibody

901-105-080317

<table>
<thead>
<tr>
<th>Catalog Number:</th>
<th>Description:</th>
<th>Dilution:</th>
<th>Diluent:</th>
<th>IPI 105 G0</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM 105 A, B, C</td>
<td>0.1, 0.5, 1.0 ml concentrated</td>
<td>1:100-1:200</td>
<td>Van Gogh Yellow</td>
<td>10 ml, prediluted</td>
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<tr>
<td>PM 105 AA</td>
<td>6.0 ml, prediluted</td>
<td>Ready-to-use</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Intended Use:**
For In Vitro Diagnostic Use

Cytokeratin 5/6 [CK5/6.007] is a mouse monoclonal antibody that is intended for laboratory use in the qualitative identification of cytokeratin 5 and 6 proteins by immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical interpretation of any staining or its absence should be complemented by morphological studies using proper controls and should be evaluated within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist.

**Summary and Explanation:**
Studies have shown Cytokeratin 5/6 reacts with human epidermis and non-keratinizing epithelium as determined by immunoblotting. Studies have also shown it reacts with cytokeratin No. 6, and weakly reacts with cytokeratin No. 4. It does not react with cytokeratins 1, 7, 8, 10, 13, 14, 18 and 19. CK5/6 has been shown to be a reliable marker for mesothelioma and squamous cell carcinoma of the lung. It does not react with pulmonary adenocarcinoma. (1)

**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 secondary 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:** CK5/6.007

**Isotype:** IgG1

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

**Epitope/Antigen:** CK5/6

**Cellular Localization:** Cytoplasmic

**Positive Control:** Prostate or skin

**Known Applications:**
Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

**Supplied As:** Buffer with protein carrier and preservative

**Storage and Stability:**
Store at 2ºC to 8ºC. 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 2ºC to 8ºC.

**Protocol Recommendations (intelliPATH and manual use):**

**Peroxide Block:**
Block for 5 minutes with Biocare's Peroxidazed 1.

**Pretreatment Solution (recommended):** Borg or 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.

**Protocol Recommendations (intelliPATH and manual use):**

**Cont'd:**

**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 optimized for use with Biocare's MACH 4 Universal HRP-Polymer Detection and intelliPATH Universal HRP Detection Kit. Other Biocare polymer detection kits may be used; however, users must validate incubation times and protocols for specific application. Use TBS for washing steps.

**intelliPATH™ Automated Slide Stainer:**
IPI105 is intended for use on the intelliPATH™ Automated Slide Stainer. Refer to the intelliPATH Automated Slide Stainer manual for specific instructions on its use. When using the intelliPATH, peroxide block with intelliPATH Peroxidase Blocking Reagent (IPBS000) may be performed following heat retrieval.

**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 titer 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. The clinical interpretation of any positive or negative staining should be evaluated within the context of clinical presentation, morphology and other histopathological criteria by a qualified pathologist. The clinical interpretation of any positive or negative staining should be complemented by morphological studies using proper positive and negative internal and external controls as well as other diagnostic tests.

**Quality Control:**

**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) (2)
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Precautions Cont’d:
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 into contact with sensitive areas, wash with copious amounts of water. 
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.

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.

References: