**p16 (INK4a)**

Concentrated and Prediluted Monoclonal Antibody

902-3007-090517

<table>
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<tr>
<th>Catalog Number:</th>
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<th>Diluent:</th>
<th>Dilution:</th>
<th>Protocol Recommendations Cont’d:</th>
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<tbody>
<tr>
<td>ACR 3007 A, C</td>
<td>0.1, 1.0 ml, concentrated</td>
<td>Van Gogh Yellow</td>
<td>1:100</td>
<td>Countersetain: Countersetain with hematoxylin. Rinse with deionized water. Apply Tacha's Bluing Solution for 1 minute. Rinse with deionized water.</td>
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<tr>
<td>APR 3007 AA</td>
<td>6.0 ml, prediluted</td>
<td></td>
<td>Ready-to-use</td>
<td>Technical Note: This antibody has been standardized with Biocare's MACH 4 detection system. Use of TBS buffer for washing steps is recommended.</td>
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</table>

**Intended Use:**
For Research Use Only. Not for use in diagnostic procedures.

**Summary and Explanation:**
p16** is a tumor suppressor protein involved in the pathogenesis of a variety of malignancies. It is a specific inhibitor of cdk4/cdk6. Recent analyses of the p16 gene revealed homozygous deletions, nonsense, missense, or frameshift mutations in several human cancers. Although the frequency of p16 abnormalities is higher in tumor-derived cell lines than in unselected primary tumors, significant subsets of clinical cases with aberrant p16 gene have been reported among melanomas, gliomas, esophageal, pancreatic, lung, and urinary bladder carcinomas. p16 immunoreactivity in paraffin-embedded tissues has also been shown to be an independent predictor in minimally invasive urothelial bladder cancer; a prognostic factor in non-small cell lung carcinoma; and has been shown to predict a positive response to chemoradiotherapy in Stage IV head and neck squamous cell carcinoma.

**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:** G175-405

**Isotype:** Mouse IgG1

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

**Epitope/Antigen:** Human p16 recombinant protein.

**Cellular Localization:** Nuclear and some cytoplasmic

**Positive Control:** Normal testis (cytoplasmic and some nuclear)

**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:** 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 room temperature with Biocare's Background Punisher.

**Primary Antibody:** Incubate for 60 minutes at RT.

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

**Polymer:** Incubate for 10-20 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.

**References:**
References Cont'd: