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| Clone | G175-405 |
| Source | Mouse Monoclonal |
| Cat #  | PM143-6ml RTUPM143-3ml RTU HAM143-6ml RTU HAM143-3ml RTU  |
| Regulatory Status | RUO(Research use only) |

p16 (G175-405)

**Intended Use:**

This antibody is intended for use to qualitatively identify p16ink4a antigen by light microscopy in formalin fixed, paraffin embedded tissue sections using immunohistochemical detection methodology. Interpretation of any positive or negative staining must be complemented with the evaluation of proper controls and must be made within the context of the patient’s clinical history and other diagnostic tests. A qualified pathologist must perform evaluation of the test.

**Summary and Explanation:**

p16ink4a is a tumor suppressor protein. It is a specific inhibitor of cdk4/cdk6, and a tumor suppressor involved in the pathogenesis of variety of malignancies. Recent analysis of the p16ink4a gene revealed homozygous deletions, nonsense, missense, or frameshift mutations in several human cancers. Although the frequency of p16 abnormalities in 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, and some types leukemia.

**Immunogen:**A synthetic peptide from the C-terminus of human p16ink4a

**Isotype:** IgG2

**Reagent Provided:**

**Pre-diluted format:** PathnSitu ready to use antibodies are pre tittered to optimal staining
 conditions. Further dilution may loose the activity and may yield to sub
 optimal staining.

**Storage Recommendations:** Store at 2°-8°C. Do not use after expiration date provided on the vial.

**Staining Recommendations:
 Antigen Retrieval Solution:** Use **EDTA Buffer(PathnSitu Cat # PS008)** as antigen retrieval solution
 Heat Retrieval Method: Retrieve sections under steam pressure for 20
 min using PathnSitu’s MERS (Multi Epitope Retrieval System) then allow
 solution to cool for 10 minutes then transfer tissue sections/slides to
 distilled water.

**Primary Antibody:**  Cover the tissue sections with primary antibody and incubate for 60
 min at room temperature when used PathnSitu PolyExcel Detection
 System.

**Detection System:** Refer to PathnSitu PolyExcel detection system protocol or manufacturer’s detection kit staining protocol when used other vendor detection system.

**Cellular Localization:** Cytoplasm and Nuclear

**Positive Control:** Cervical Ca

**Troubleshooting:** Follow the antibody specific protocol recommendations according to data sheet provided. If unusual results occur, contact PathnSitu Technical Support at 040-2701 5544 or techsupport@pathnsitu.com.

**Limitations and Warranty:** There are no warranties, expressed or implied, which extend beyond this
 description. PathnSitu is not liable for property damage, personal injury, or
 economic loss caused by this product.

**Bibliography:** 1. Sano T, Oyama T, Kashiwabara K, et al. Expression status of p16 protein is
 associated with human papillomavirus oncogenic potential in cervical and genital
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 degree of cervical neoplasia: a comparison with Ki-67 expression and detection
 of high-risk HPV types. Modern Pathol. 2003;16:665-673.

3. Negri G, Egarter-Vigl E, Kasal A, et al. p16INK4a is a useful marker for the
 diagnosis of adenocarcinoma of the cervix uteri and its precursors: an
 immunohistochemical study with immuncytochemical correlations. Am J Surg
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 4. Klaes R, Friedrich T, Spitkovsky D, et al. Overexpression of p16(INK4a) as a
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 J Cancer. 2001;92:276-284.