Catalog Number: ACR3007 A, C  APR 3007 AA
Description: 0.1, 1.0 ml, concentrated 6.0 ml, prediluted
Dilution: 1:75-1:125 Ready-to-use
Diluent: Van Gogh Yellow N/A

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

Summary and Explanation:
p16\textsuperscript{INK4a} 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\textsuperscript{INK4a} gene revealed homozygous deletions, nonsense, missense, or frameshift mutations in several human cancers. Although the frequency of p16\textsuperscript{INK4a} abnormalities is higher in tumor-derived cell lines than in unselected primary tumors, significant subsets of clinical cases with aberrant p16\textsuperscript{INK4a} 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 uterine 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.

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.

Protocol Recommendations:

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

Pretreatment Solution: Reveal

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 room temperature with Biocare's Background Punisher.

Primary Antibody: Incubate for 60 minutes at room temperature.

Probe: Incubate for 10 minutes at room temperature with a probe.

Polymer: Incubate for 10 minutes at room temperature with a polymer.

Chromogen: Incubate for 5 minutes at RT when using Biocare’s DAB – OR – Incubate for 5-7 minutes at RT when using 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 be used with other Biocare polymer detection kits, and has been tested on an automated staining system. Use of TBS buffer for washing steps is recommended.

Performance Characteristics:
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.

Quality Control:
Refer to CLSI Quality Standards for Design and Implementation of Immunohistochemistry Assays; Approved Guideline-Second edition (I/LA28-A2).
CLSI Wayne, PA, USA (www.clsi.org), 2011

Precautions:
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 (NaN\textsubscript{3}) 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 and is located at http://biocare.net/support/msds/.

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.

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

This product is for research purposes only and not for any therapeutic or diagnostic applications or for commercial drug screening.

Biocare Medical is committed to meeting and exceeding our customers' expectations for quality and reliability in our products. Biocare develops and manufactures all IHC products under an FDA-compliant Quality System based on Good Manufacturing Practices (GMP) per 21CFR820 (QSR) regulations and ISO 9001 (Management Systems) and 13485 (Medical Devices) standards. Each product lot is quality control tested before release to ensure lot-to-lot consistency.

References:
References cont’d: