p63

Concentrated and Prediluted Monoclonal Antibody
902-163-080217

BIOCARE MEDICAL

Catalog Number:	**ACR 163 A, B, C**	**APR 163 AA, H**
Description:	0.1, 0.5, 1.0 ml, concentrated	6.0, 25 ml, Prediluted
Dilution:	1:100-1:200	Ready-to-use
Diluent:	Van Gogh Yellow	N/A

Intended Use:

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

p63, a homolog of the tumor suppressor p53, has been identified in basal cells in the epithelial layers of a variety of tissues, including epidermis, cervix, urothelium, breast and prostate (1). p63 was detected in nuclei of the basal epithelium in normal prostate glands; however, it was not expressed in malignant tumors of the prostate (2). As a result, p63 has been reported as a useful marker for differentiating benign from malignant lesions in the prostate, particularly when used in combination with markers of high molecular weight cytokeratins and the prostate-specific marker AMACR (P504S) (3-4).

p63 has also been shown to be a sensitive marker for lung squamous cell carcinomas (SqCC), with reported sensitivities of 80-100% (5-8). Specificity for lung SqCC, vs. lung adenocarcinoma (LADC), has been reported to be approximately 70-90%, as positive staining with p63 has been typically observed in 10-30% of LADC cases (5-8). In breast tissue, p63 has been identified in myoepithelial cells of normal ducts (9).

Reports have described the utility of p63 in a panel of IHC markers for the assessment of breast lesions, due to the differential expression of the luminal vs. basal and myoepithelial markers (9-11).

Source: Mouse Monoclonal
Species Reactivity: Human, mouse and rat
Clone: 4A4
Isotype: IgG2a/kappa
Total Protein Concentration: ~10 mg/ml. Call for lot specific Ig concentration
Epitope/Antigen: p63
Cellular Localization: Nuclear
Positive Control: Normal prostate
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.

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Staining Protocol Recommendations:

Peroxide Block: Block for 5 minutes with Biocare's Peroxidazed 1.
Pretreatment Solution (recommended): 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 RT with Biocare's Background Punisher.
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 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:
This product is provided for Research Use Only (RUO) and is not for use in diagnostic procedures. Suitability for specific applications may vary and it is the responsibility of the end user to determine the appropriate application for its use.
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 (NaN_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) (12)
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 in contact with sensitive areas, wash with copious amounts of water. (13)
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.

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Precautions Cont'd:
5. Do not use reagent after the expiration date printed on the vial.
6. The MSDS is available upon request and is located at http://biocare.net/support/msds/.

Technical Support:
Contact Biocare's Technical Support at 1-800-542-2002 for questions regarding this product.

References:
. Yang A, *et al.* p63, a p53 homolog at 3q27–29, encodes multiple products with transactivating, death-inducing, and dominant-negative activities. Mol Cell. 1998 Sep; 2(3):305-16.
2. Signoretti S, *et al.* p63 is a prostate basal cell marker and is required for prostate development. Am J Pathol. 2000 Dec; 157(6):1769-75.
3. Paner GP, Luthringer DJ, Amin MB. Best practice in diagnostic immunohistochemistry: prostate carcinoma and its mimics in needle core biopsies. Arch Pathol Lab Med. 2008 Sep; 132(9):1388-96.
4. Humphrey PA. Diagnosis of adenocarcinoma in prostate needle biopsy tissue. J Clin Pathol. 2007 Jan; 60(1):35-42.
5. Mukhopadhyay S, Katzenstein AL. Subclassification of non-small cell lung carcinomas lacking morphologic differentiation on biopsy specimens: Utility of an immunohistochemical panel containing TTF-1, napsin A, p63, and CK5/6. Am J Surg Pathol. 2011 Jan; 35(1):15-25.
6. Tacha D, *et al.* A six antibody panel for the classification of lung adenocarcinoma versus squamous cell carcinoma. Appl Immunohistochem Mol Morphol. 2012 May; 20 (3):201-7.
7. Terry J, *et al.* Optimal immunohistochemical markers for distinguishing lung adenocarcinomas from squamous cell carcinomas in small tumor samples. Am J Surg Pathol. 2010 Dec; 34(12):1805-11.
8. Pu RT, Pang Y, Michael CW. Utility of WT-1, p63, MOC31, mesothelin, and cytokeratin (K903 and CK5/6) immunostains in differentiating adenocarcinoma, squamous cell carcinoma, and malignant mesothelioma in effusions. Diagn Cytopathol. 2008 Jan; 36(1):20-5.
9. Lerwill MF. Current practical applications of diagnostic mmunohistochemistry in breast pathology. Am J Surg Pathol. 2004 Aug; 28(8):1076-91.

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