PIN-4™ Cocktail (CK5 + CK14 + p63 + P504S)
Prediluted Double Stain Antibody (4-Step)
Catalog Number: PPM 225 DS AA, H, L
Control Number: 902-225DS-102309

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

### Summary and Explanation:
In normal epithelia, HMW Cytokeratins (CK5 and CK14) stain basal epithelia, in the prostate gland.

p63 is detected in prostate basal epithelial nuclei in normal prostate, however, is negative in malignant tumors of the prostate gland. Thus p63 is useful as a differential marker for benign and malignant tumors of prostate gland and can be useful as a negative marker.

Expression of P504S protein is found in prostatic adenocarcinoma, but not in benign prostatic tissue. It has also been found to stain premalignant lesions of the prostate: high-grade prostatic intraepithelial neoplasia (PIN) and atypical adenomatous hyperplasia. P504S can be used as a positive marker for PIN. It will be useful to confirm the diagnosis of small focus of prostate carcinoma in needle biopsies.

The combination of P504S + HMW CKs + p63 (PIN-4™ Cocktail) may be extremely useful for diagnosing prostatic intraepithelial neoplasia, especially in difficult cases, and in cases with limited tissues. P504S stains cytoplasm in prostate adenocarcinoma and atypical adenomatous hyperplasia, and p63 and HMW CKs stain normal (negative marker) and benign prostate glands.

### Source:
Mouse monoclonal and Rabbit polyclonal

### Species Reactivity:
Human; others not tested.

### Clone:
XM26 + LL002 + BC4A4 + N/A

### Isotype:
IgG1/kappa + IgG3 + IgG2a/kappa + N/A

### Epitope/Antigen:
CK5 + CK14 + p63 + P504S

### Cellular Localization:
P504S: cytoplasmic (red), HMW CKs: cytoplasmic (brown), p63: nuclear (brown)

### Positive Control:
Prostatic intraepithelial neoplasia

### Normal Tissue:
Prostate

### Abnormal Tissue:
PIN and prostate cancer

### 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. Diluted reagents should be used promptly; any remaining reagent should be stored at 2ºC to 8ºC.

### Protocol Recommendations

#### Peroxide Block:
Block for 5 minutes with BIOCARE's PEROXIDAZED 1.

#### Pretreatment Solution (recommended):
Reveal 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 20 minutes then wash in distilled water.

#### Protein Block:
Incubate for 10-15 minutes at RT with BIOCARE's Background Sniper.

#### Primary Antibody:
Incubate for 30-45 minutes at RT.

#### Double Stain Detection:
Incubate for 30 minutes at RT using BIOCARE's Double Stain Kit #2.

#### Chromogen (1):
Incubate for 5 minutes at RT when using BIOCARE's Betazoid DAB.

#### Chromogen (2):
Incubate for 10 minutes at RT with BIOCARE's Vulcan Fast Red.

### Counterstain:
Rinse with deionized water. Incubate for 30-60 seconds with Tacha's Automated Hematoxylin. Rinse with deionized water. Apply Tacha's Bluing Solution for 1 minute.

### Technical Note:
This antibody has been standardized with BIOCARE's Double Stain Kit #2. It can also be used on an automated staining system. Use TBS buffer for washing steps.

### 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. These products are tools that can be used for interpretation of morphological findings in conjunction with other diagnostic tests and pertinent clinical data by a qualified pathologist.

### Quality Control:
Refer to NCCLS Quality Assurance for Immunocytochemistry approved guidelines, December 1999 MM4-A Vol.19 No.26 for more information about Tissue Controls.

### 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 (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.

### 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.

### References:

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**Quality System Certification**

ISO 9001:2000 CERTIFIED

**Technical Support**

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www.biocare.net
References cont’d:


