

## p63 + P504S

Prediluted Cocktail Antibodies

Control Number: 902-201VP-111815

### VP Echelon™ Series

**Catalog Number:** VP 201 G, G25

**Description:** 6.0, 25.0 ml, prediluted

**Dilution:** N/A

**Intended Use:**

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

**Summary and Explanation:**

p63, a homolog of the tumor suppressor p53, has been identified in proliferating basal cells in the epithelial layers of a variety of tissues, including epidermis, cervix, urothelium 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).

P504S, also known as  $\alpha$ -methylacyl coenzyme A racemase (AMACR), is a peroxisomal and mitochondrial enzyme that plays a role in bile acid synthesis and  $\beta$ -oxidation of branched chain fatty acids (3). P504S was initially identified from a cDNA library as a gene that is overexpressed in human prostate cancer; with little or no expression in normal prostate (4,5). In immunohistochemistry, P504S has been shown to be a specific marker of prostatic adenocarcinoma (4-7). Additionally, prostate glands involved in PIN have been found to express P504S, whereas P504S was nearly undetectable in benign glands (7,8).

**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, an enzyme labeled polymer is added to bind to the primary antibody. The detection of the bound antibody is evidenced by a colorimetric reaction.

**Reagent provided:**

p63 + P504S is provided as a prediluted antibody cocktail of anti-p63 and anti-P504S antibodies, in buffer with carrier protein and preservative.

<b>Antibody</b>	anti-p63	anti-P504S
<b>Clone</b>	4A4	N/A
<b>Source</b>	Mouse monoclonal	Rabbit polyclonal
<b>Isotype</b>	IgG2a/kappa	IgG
<b>Epitope/ Antigen</b>	p63	P504S
<b>Cellular Localization</b>	Nuclear	Granular cytoplasm
<b>Staining</b>	Brown (DAB)	Brown (DAB)

**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.

**Known Applications:**

Immunohistochemistry (formalin-fixed paraffin-embedded tissues).

**Species Reactivity:** Human, others not tested

**Positive Tissue Control:** Normal prostate and prostate adenocarcinoma

**Staining Protocol Recommendations:**

Using *ultraVIEW* Detection Kit

**Pretreatment Solution (recommended):** CC1

**Pretreatment Protocol:** Standard

**Primary Antibody:** Incubate for 32 minutes at 37°C.

V-Blocker is recommended to be applied prior to any detection system.

**ultraBlock (BRI4001):** Incubate for 4 minutes (with appropriate Option # registered by user).

**Technical Note:**

Biocare's VP Echelon Series of predilutes have been developed for use with Ventana® Medical Systems, BenchMark® XT Immunohistochemistry Staining System in combination with Ventana® Detection Kits and Ventana® Prep Kit Dispensers.

**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<sub>3</sub>) 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) (9)
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. (10)
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.
5. Do not use reagent after the expiration date printed on the vial.
6. The SDS is available upon request and is located at <http://biocare.net>.

**Technical Support:**

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



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**References:**

1. 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;2:305-16.
2. Signoretti S, *et. al.* p63 Is a Prostate Basal Cell Marker and Is Required for Prostate Development. *Am J Pathol.* 2000;157:1769-75.
3. Ferdinandusse S, *et. al.* Subcellular localization and physiological role of  $\alpha$ -methylacyl-CoA racemase. *J Lipid Res.* 2000; 41:1890-6.
4. Xu J, *et. al.* Identification of Differentially Expressed Genes in Human Prostate Cancer Using Subtraction and Microarray. *Cancer Res.* 2000; 60:1677-82.
5. Rubin MA, *et. al.*  $\alpha$ -Methylacyl Coenzyme A Racemase as a Tissue Biomarker for Prostate Cancer. *JAMA.* 2002; 287:1662-70.
6. Luo J, *et. al.* Alpha-methylacyl-CoA racemase: a new molecular marker for prostate cancer. *Cancer Res.* 2002; 62:2220-6.
7. Zhou M, *et. al.* Alpha-Methylacyl-CoA Racemase A Novel Tumor Marker Overexpressed in Several Human Cancers and Their Precursor Lesions. *Am J Surg Pathol.* 2002; 26:926-31.
8. Wu CL, *et. al.* Analysis of  $\alpha$ -Methylacyl-CoA Racemase (P504S) Expression in High-Grade Prostatic Intraepithelial Neoplasia. *Hum Pathol.* 2004; 35:1008-13.
9. Center for Disease Control Manual. Guide: Safety Management, NO. CDC-22, Atlanta, GA. April 30, 1976 "Decontamination of Laboratory Sink Drains to Remove Azide Salts."
10. Clinical and Laboratory Standards Institute (CLSI). Protection of Laboratory Workers from Occupationally Acquired Infections; Approved Guideline-Fourth Edition CLSI document M29-A4 Wayne, PA 2014.

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