

## P504S (P)

Concentrated and Prediluted Polyclonal Antibody  
903-200-050719

**BIOCARE**  
M E D I C A L

Catalog Number:	ACA 200 A, B, C	APA 200 AA, H	IPA 200 G10	AVA 200 G, G25	VLTRZ 200 G20
Description:	0.1, 0.5, 1.0 mL, conc.	6.0, 25 mL, RTU	10 mL, RTU	6.0, 25 mL, RTU	20 mL, RTU
Dilution:	1:100	Ready-to-use	Ready-to-use	Ready-to-use	Ready-to-use
Diluent:	Renaissance Background Reducing	N/A	N/A	N/A	N/A

### Intended Use:

Analyte Specific Reagent. Analytical and performance characteristics are not established.

### Summary & Explanation:

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 (1). *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 (2,3). In immunohistochemistry, P504S has been shown to be a specific marker of prostatic adenocarcinoma (2-5). Additionally, prostate glands involved in PIN have been found to express P504S, whereas P504S was nearly undetectable in benign glands (5,6).

**Source:** Rabbit polyclonal

**Clone:** N/A

**Isotype:** IgG

### 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. The product is stable to the expiration date printed on the label, when stored under these conditions. Do not use after expiration date. Diluted reagents should be used promptly; any remaining reagent should be stored at 2°C to 8°C.

### References:

1. Ferdinandusse S, *et al.* Subcellular localization and physiological role of  $\alpha$ -methylacyl-CoA racemase. *J Lipid Res.* 2000; 41:1890-6.
2. Xu J, *et al.* Identification of Differentially Expressed Genes in Human Prostate Cancer Using Subtraction and Microarray. *Cancer Res.* 2000; 60:1677-82.
3. Rubin MA, *et al.*  $\alpha$ -Methylacyl Coenzyme A Racemase as a Tissue Biomarker for Prostate Cancer. *JAMA.* 2002; 287:1662-70.
4. Luo J, *et al.* Alpha-methylacyl-CoA racemase: a new molecular marker for prostate cancer. *Cancer Res.* 2002; 62:2220-6.
5. 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.
6. Wu CL, *et al.* Analysis of  $\alpha$ -Methylacyl-CoA Racemase (P504S) Expression in High-Grade Prostatic Intraepithelial Neoplasia. *Hum Pathol.* 2004; 35:1008-13.
7. 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."
8. 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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