

**AMACR (RM), 2X**

Rabbit Monoclonal Antibody

Control Number: 903-3125-091017

**Catalog Number:** OAA 3125 G13**Description:** 13 mL, concentrated (2X)**Intended Use:**

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

**Summary & Explanation:**

$\alpha$ -Methylacyl coenzyme A racemase (AMACR), also known as P504S, is a peroxisomal and mitochondrial enzyme that plays a role in bile acid synthesis and  $\beta$  oxidation of branched chain fatty acids (1). AMACR was initially identified from a cDNA library as a gene that is overexpressed in human prostate cancer; with little or no expression in normal or benign prostate glands (2-3). In immunohistochemistry, AMACR has been shown to be a marker of prostatic adenocarcinoma (2-5). Additionally, prostate glands involved in prostatic intraepithelial neoplasia (PIN), have been found to express AMACR; whereas AMACR was nearly undetectable in benign glands (5-6).

**Source:** Rabbit monoclonal**Clone:** 13H4**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. 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.

**Analyte Specific Reagent Note:**

Quality control of OAA3125 has been performed by IHC using the ONCORE Automated Slide Stainer with Multiplex Detection 2, pH 6 heat-induced epitope retrieval at 101°C and DS Buffer. However, it is the responsibility of the laboratory or the end-user to develop their own protocol and label appropriate disclaimer.

**References:**

1. Ferdinandusse S, *et al.* Subcellular localization and physiological role of alpha-methylacyl-CoA racemase. *J Lipid Res.* 2000 Nov; 41 (11):1890-6.
2. Xu J, *et al.* Identification of differentially expressed genes in human prostate cancer using subtraction and microarray. *Cancer Res.* 2000 Mar 15; 60(6):1677-82.
3. Rubin MA, *et al.* alpha-Methylacyl coenzyme A racemase as a tissue biomarker for prostate cancer. *JAMA.* 2002 Apr 3; 287 (13):1662-70.
4. Luo J, *et al.* Alpha-methylacyl-CoA racemase: a new molecular marker for prostate cancer. *Cancer Res.* 2002 Apr 15; 62(8):2220-6.
5. Zhou M, *et al.* Alpha-Methylacyl-CoA racemase: a novel tumor marker over-expressed in several human cancers and their precursor lesions. *Am J Surg Pathol.* 2002 Jul; 26(7):926-31.
6. Wu CL, *et al.* Analysis of alpha-methylacyl-CoA racemase (P504S) expression in high-grade prostatic intraepithelial neoplasia. *Hum Pathol.* 2004 Aug; 35(8):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.