GENE BIO SOLUTION

AMACR (RM) 2X

Format	Catalog no. -	Pack size	Dilution
Concentrated	GB3016AA,H	-	-
Prediluted		6.0, 25 mL	Ready to use

PRODUCT DESCRIPTION -

α-Methylacyl coenzyme A racemase (AMACR Antibody), or P504S, is an enzyme located in peroxisomes and mitochondria that is involved in bile acid production and the β-oxidation of branched-chain fatty acids. In immunohistochemistry, the AMACR antibody is recognized as a particular marker for prostatic adenocarcinoma. Furthermore, prostate glands associated with PIN have been seen to express AMACR, while AMACR was almost imperceptible in benign glands. AMACR and CK5/14 may be utilized to evaluate neoplasia in prostate biopsies. AMACR antibody predominantly stains prostate cancer; however, it has also been demonstrated to stain many other carcinomas, including hepatomas, breast carcinomas, and pancreatic and islet tumors.

INTENDED USE -

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

SUMMARY AND EXPLANATION -

α-Methylacyl coenzyme A racemase (AMACR), or P504S, is an enzyme located in peroxisomes and mitochondria, involved in bile acid production and the β-oxidation of branched-chain fatty acids. AMACR was first discovered in a cDNA library as a gene that is overexpressed in human prostate cancer, with minimal or absent expression in normal or benign prostate glands. In immunohistochemistry, AMACR has been identified as a marker for prostatic adenocarcinoma. Furthermore, prostate glands associated with prostatic intraepithelial neoplasia (PIN) have been observed to exhibit AMACR, but AMACR was almost imperceptible in benign glands.

PRINCIPLE OF PROCEDURE -

The identification of antigens in tissues and cells is a multi-step immunohistochemistry procedure. The first step attaches the primary antibody to its designated epitope. Following the tagging of the antigen with a primary antibody, a one-, two-, or three-step detection protocol may be utilized. The single-step approach will utilize an enzyme-conjugated polymer that attaches to the main

antibody. A two-step approach will involve the addition of a secondary antibody to bind to the primary antibody. An enzyme-labeled polymer is subsequently introduced to attach to the secondary antibody. The three-step detection protocol involves the addition of a secondary antibody to bind to the primary antibody, followed by a linker antibody step to enhance binding efficacy. An enzyme-conjugated polymer is subsequently introduced to attach to the linker antibody. The presence of bound antibodies is demonstrated by a colorimetric response.

SOURCE - Rabbit monoclonal

CLONE- 13H4

ISOTYPE - IgG

KNOWN APPLICATIONS - Immunohistochemistry 30-40 min. At RT. Staining of formalin-fixed tissues requires heating tissue sections in between pH 7.4 - 9.0 for 45 min at 95ºC followed by cooling at room temperature for 20 minutes.

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.

Materials required but not provided -

1) Positivetissuecontrol
2) Negativecontroltissue(internalorexternal)
3) Microscopeslidesandcoverslips
4) Stainingjarsorbaths
5) Timer
6) Xyleneorxylenesubstitute
7) Ethanolorreagentalcohol
8) Deionizedordistilledwater
9) Heatingequipmentorenzymefortissuepretreatmentstep
10)Detection system
11)Chromogen
12)Wash buffer
13) Hematoxylin
14)Antibody diluents
15)Peroxide block
16)Light microscope

17)Mounting medium

LIMITATIONS-

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 Genebio products. Ultimately, it is the responsibility of the investigator to determine optimal conditions.