

# Anti-AMACR / p504S (Prostate Cancer Marker) Antibody

Mouse Monoclonal Antibody

Catalog # AH13243

## Product Information

|                   |                        |
|-------------------|------------------------|
| Application       | IHC-P, IF              |
| Primary Accession | <a href="#">Q9UHK6</a> |
| Other Accession   | <a href="#">508343</a> |
| Reactivity        | Human                  |
| Host              | Mouse                  |
| Clonality         | Monoclonal             |
| Isotype           | Mouse / IgG            |
| Clone Names       | AMACR/1723             |
| Calculated MW     | 42387                  |

## Additional Information

|                  |   |
|------------------|---|
| Gene ID          | 23600   |
| Other Names      | Alpha-methylacyl-CoA Racemase, CBAS4, Da1-8, Macr1, RACE, RM  |
| Application Note | Immunofluorescence (1-2ug/ml); ,Immunohistology (Formalin-fixed) (1-2ug/ml for 30 minutes at RT),(Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes),Optimal dilution for a specific application should be determined. |
| Format           | 200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.  |
| Storage          | Store at 2 to 8°C.Antibody is stable for 24 months.   |
| Precautions      | Anti-AMACR / p504S (Prostate Cancer Marker) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.  |

## Protein Information

|          |  |
|----------|--|
| Name     | AMACR  |
| Function | Catalyzes the interconversion of (R)- and (S)-stereoisomers of alpha-methyl-branched-chain fatty acyl-CoA esters (PubMed: <a href="#">10655068</a> , PubMed: <a href="#">11060359</a> , PubMed: <a href="#">7649182</a> ). Acts only on coenzyme A thioesters, not on free fatty acids, and accepts as substrates a wide range of alpha-methylacyl-CoAs, including pristanoyl-CoA, trihydroxycoprostanoyl-CoA (an intermediate in bile acid synthesis), and arylpropionic acids like the |

anti-inflammatory drug ibuprofen (2- (4-isobutylphenyl)propionic acid) but neither 3-methyl-branched nor linear-chain acyl-CoAs (PubMed:[10655068](#), PubMed:[11060359](#), PubMed:[7649182](#)).

#### Cellular Location

Peroxisome. Mitochondrion

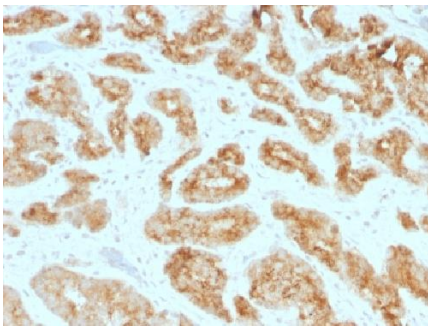
## Background

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This antibody recognizes a protein of 54kDa, which is identified as AMACR, also known as p504S. It is an enzyme that is involved in bile acid biosynthesis and  $\beta$ -oxidation of branched-chain fatty acids. AMACR is essential in lipid metabolism. It is expressed in cells of premalignant high-grade prostatic intraepithelial neoplasia (HGPIN) and prostate adenocarcinoma. The majority of the carcinoma cells show a distinct granular cytoplasmic staining reaction. AMACR is present at low or undetectable levels in glandular epithelial cells of normal prostate and benign prostatic hyperplasia. A spotty granular cytoplasmic staining is seen in a few cells of the benign glands. AMACR is expressed in normal liver (hepatocytes), kidney (tubular epithelial cells) and gall bladder (epithelial cells). Expression has also been found in lung (bronchial epithelial cells) and colon (colonic surface epithelium). AMACR expression can also be found in hepatocellular carcinoma and kidney carcinoma. Past studies have also shown that AMACR is expressed in various colon carcinomas (well, moderately and poorly differentiated) and over expressed in prostate carcinoma.

## Images

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Formalin-fixed, paraffin-embedded human Prostate Carcinoma Stained with AMACR / p504S Monoclonal Antibody (AMACR/1723)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.