



## Mouse anti AMACR Monoclonal Antibody

Alternative Name(s):  $\alpha$ -Methylacyl coenzyme A racemase; P504S

### Order Information

- **Description:** AMACR
- **Catalogue:** 606-440
- **Lot:** See label
- **Size:** 100ug/200ul
- **Host:** Mouse
- **Clone:** ZA003
- **Application:** IHC(P)
- **Reactivity:** Hu

### ANTIGEN PREPARATION

A recombinant protein of AMACR

### BACKGROUND

Alpha-methylacyl-CoA racemase (AMACR) is an enzyme that interconverts pristanoyl-CoA and C27-bile acylCoAs between their (R)- and (S)-stereoisomers. The conversion to the (S)-stereoisomers is necessary for degradation of these substrates by peroxisomal beta-oxidation. Proteins from this locus localize to both mitochondria and peroxisomes. Mutations in this gene may be associated with adult-onset sensorimotor neuropathy, pigmentary retinopathy, and adrenomyeloneuropathy due to defects in bile acid synthesis. AMACR regulates metabolism of lipids and drugs. Studies showed that dietary branched-chain fatty acids increased production of AMACR in prostate cancer cells, with catalytic activity also being increased. AMACR protein is detectable in semen ejaculate. The higher AMACR levels detected in cancer patients suggests that semen AMACR protein may be useful as a noninvasive test for prostate cancer. It was demonstrated that high expression of AMACR is a key adverse prognostic factor and also a potential therapeutic target in oral squamous cell carcinoma.

### PURIFICATION

The mouse IgG is purified by Protein A-Affinity Chromatography according to Isotyping

### FORMULATION

This affinity purified antibody is supplied in sterile Phosphatebuffered saline (pH7.2) containing antibody stabilizer

### SPECIFICITY

This antibody recognizes human AMACR protein. The other species are not tested.

### STORAGE

The antibodies are stable for 24 months from date of receipt when stored at  $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$ . The antibodies can be stored at  $2^{\circ}\text{C}$ - $8^{\circ}\text{C}$  for three month without detectable loss of activity. Avoid repeated freezing-thawing cycles.

### APPLICATIONS/SUGGESTED WORKING DILUTIONS\*

- Western Blot: 0.1-1  $\mu\text{g/ml}$
- ELISA: 0.01-0.1  $\mu\text{g/ml}$
- Immunoprecipitation: 2-5  $\mu\text{g/ml}$
- IHC: 2-10  $\mu\text{g/ml}$
- Flow cytometry: Not tested
- Molecular Weight: 40.0
- Positive Control: Kidney Tissue
- Cellular Location: Cell Membrane

\*Optimal dilutions should be determined by researchers for the specific applications.

### FOR RESEARCH USE ONLY.

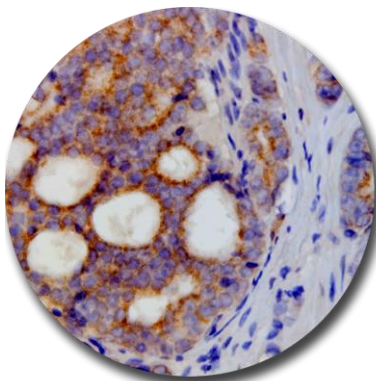
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#### DATA ATTACHMENTS



Immunohistochemistry: Human prostate carcinoma (FFPE) stained with Mouse anti-AMACR antibody (Cat# 606-440) at 1:200 for 10 min @ RT. Staining of formalin-fixed tissue requires boiling tissue sections in 10 mM Citrate Buffer, pH 6.0 for 10 min followed by cooling at RT for 20 min.

#### REFERENCES

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