

AM33343SU-S**Monoclonal Antibody to AMACR / RACE - Supernatant****Alternate names:**

2-methylacyl-CoA racemase, Alpha-methylacyl-CoA racemase, P504S

Quantity:

0.1 ml

Background:

AMACR (P504S) is an essential enzyme in the beta-oxidation of branched-chain fatty acids. Recently, AMACR (P504S) was identified through cDNA library subtraction and microarrays in malignant prostate tissues.

High expression of AMACR (P504S) protein is found in prostatic adenocarcinoma but not in benign prostatic tissue by immunohistochemical staining in paraffin-embedded tissues. The expression of AMACR (P504S) is also detected in two premalignant lesions of the prostate: high-grade prostatic intraepithelial neoplasia (PIN) and atypical adenomatous hyperplasia. Using AMACR (P504S) as a positive marker along with basal cell staining (34 β E12 or P63) as a negative marker could help to confirm the diagnosis of small focus of prostate carcinoma on needle biopsy.

Uniprot ID:[Q9UHK6](#)**NCBI:**[NP_055139.4](#)**GeneID:**[23600](#)**Host / Isotype:**

Rabbit / IgG

Clone:

13H4

Immunogen:

Full length Human recombinant AMACR protein.

Genename: AMACR**Format:****State:** Liquid Culture Supernatant**Preservatives:** 0.05% Sodium Azide**Applications:****Western Blotting:** 1/100-1/200 for 2 hours at RT.**Immunohistochemistry on Formalin-Fixed Paraffin Sections:** 1/50-1/100 for 30-60 min at RT.

Staining of formalin-fixed tissues requires boiling tissue sections in 1mM EDTA, pH 7.5-8.5 for 10-20 min followed by cooling at RT for 20 minutes.

Positive Control: HEK cells or Prostate Adenocarcinoma.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Molecular Weight:

54kDa

Specificity:

This Monoclonal 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 β -oxidation of branched-chain fatty acids. AMACR 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.

Cellular Localization: Cytoplasmic.

Species Reactivity:

Tested: Human.

Storage:

Store undiluted at 2-8°C.

DO NOT FREEZE!

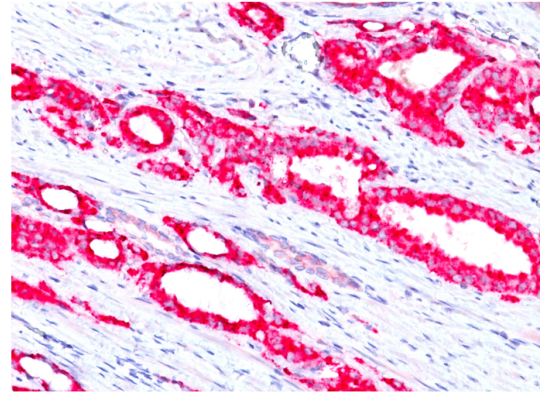
Shelf life: one year from despatch.

General Readings:

1. Xu J, Stolk JA, Zhang X, Silva SJ, Houghton RL, Matsumura M, et al. Identification of differentially expressed genes in human prostate cancer using subtraction and microarray. *Cancer Res.* 2000 Mar 15;60(6):1677-82. PubMed PMID: 10749139.
2. Jiang Z, Fanger GR, Woda BA, Banner BF, Algate P, Dresser K, et al. Expression of alpha-methylacyl-CoA racemase (P504s) in various malignant neoplasms and normal tissues: a study of 761 cases. *Hum Pathol.* 2003 Aug;34(8):792-6. PubMed PMID: 14506641.
3. Jiang Z, Woda BA, Rock KL, Xu Y, Savas L, Khan A, et al. P504S: a new molecular marker for the detection of prostate carcinoma. *Am J Surg Pathol.* 2001 Nov;25(11):1397-404. PubMed PMID: 11684956.

Pictures:

Formalin-Fixed, Paraffin-Embedded Human prostate carcinoma (20X) Stained with AMACR / p504S Rabbit Monoclonal Antibody Cat.-No AM33343SU (Clone 13H4).



Formalin-Fixed, Paraffin-Embedded Human prostate carcinoma (10X) Stained with AMACR / p504S Rabbit Monoclonal Antibody Cat.-No AM33343SU (Clone 13H4).

