

P504S (E-16): sc-107916

BACKGROUND

P504S, also known as AMACR (α -methylacyl-CoA racemase), 2-methylacyl-CoA racemase or RACE, is an enzyme belonging to the caiB/baiF CoA-transferase family. Localizing to the peroxisome and mitochondrion, P504S plays a role in the metabolism of branched-chain fatty acids and bile acid intermediates. More specifically, P504S catalyzes the conversion of pristanoyl-CoA and C27-bile acyl-CoAs to their (S)-stereoisomers which can then be degraded by peroxisomal β oxidation. Mutations in the gene encoding P504S can lead to AMACR deficiency, a disease characterized by increased concentrations of pristanic acid that is associated with adult onset sensory motor neuropathy, and/or CBAS4 (congenital bile acid synthesis defect type 4), a disorder characterized by intrahepatic cholestasis, absence of cholic acid from bile, neonatal jaundice and bile duct deficiency. In addition, P504S is overexpressed in prostate cancer and is believed to be functionally important for prostate cancer cell growth.

REFERENCES

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3. Chen, W., et al. 2007. Molecular cloning and preliminary analysis of the human α -methylacyl-CoA racemase promoter. *Mol. Biol. Rep.* 36: 426-430.
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CHROMOSOMAL LOCATION

Genetic locus: AMACR (human) mapping to 5p13.2; Amacr (mouse) mapping to 15 A1.

SOURCE

P504S (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of P504S of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-107916 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

P504S (E-16) is recommended for detection of P504S of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

P504S (E-16) is also recommended for detection of P504S in additional species, including bovine, porcine and avian.

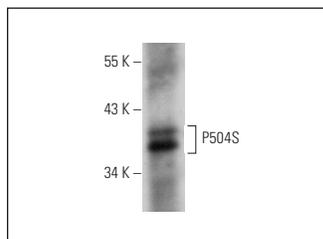
Suitable for use as control antibody for P504S siRNA (h): sc-92063, P504S siRNA (m): sc-151968, P504S shRNA Plasmid (h): sc-92063-SH, P504S shRNA Plasmid (m): sc-151968-SH, P504S shRNA (h) Lentiviral Particles: sc-92063-V and P504S shRNA (m) Lentiviral Particles: sc-151968-V.

Molecular Weight of P504S predominant isoform: 42 kDa.

Molecular Weight of other P504S isoforms: 32/31/28/22 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or mouse liver extract: sc-2256.

DATA



P504S (E-16): sc-107916. Western blot analysis of P504S expression in mouse liver tissue extract.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

MONOS
Satisfaction
Guaranteed

Try **P504S (H-2): sc-514424** or **P504S (2A10F3): sc-81710**, our highly recommended monoclonal alternatives to P504S (E-16).