

BACKGROUND

AMACR, also known as P504S, is a mitochondrial and peroxisomal enzyme that catalyzes the racemization of alpha-methyl, branched carboxylic coenzyme A thioesters and is Responsible for the conversion of pristanoyl-CoA and C27-bile acyl-CoAs to their (S)-stereoisomers. The conversion to the (S)-stereoisomers is necessary for degradation of these substrates by peroxisomal beta-oxidation. Thus, it plays a crucial role in the beta-oxidation of bile acid intermediates, dietary branched-chain fatty acids, and fatty acid derivatives.¹ Mutations in this gene may be associated with adult-onset sensorimotor neuropathy, pigmentary retinopathy, and adrenomyeloneuropathy due to defects in bile acid synthesis.² Alternatively spliced transcript variants have been described. Recent studies showed that AMACR is overexpressed in a variety of neoplasms, such as prostate and colon cancer. AMACR overexpression in human solid tumors is a potential target for cancer treatment.³

References:

1. Evans, A.J.: J. Clin. Pathol. 56:892-897, 2003
2. Ferdinandusse, S. et al: Nature Genet. 24:188-191, 2000
3. Truong, C.D. et al: Int. J. Clin. Exp. Pathol. 1:518-523, 2008

TECHNICAL INFORMATION

Source:

AMACR Antibody is a mouse monoclonal antibody raised against recombinant human AMACR protein fragment expressed in *E. coli*.

Specificity and Sensitivity:

This antibody detects endogenous levels of AMACR proteins in normal cell lysates without cross-reactivity with other related proteins.

Storage Buffer: PBS and 30% glycerol

Storage:

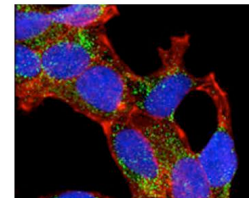
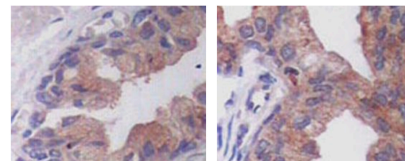
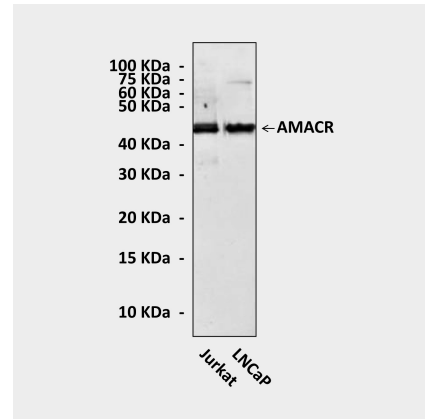
Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

APPLICATIONS

Application:	*Dilution:
WB	1:500-2000
IP	1:50-100
IHC	1:200-1000
ICC	1:200-100
FACS	n/d

**Optimal dilutions must be determined by end user.*

QUALITY CONTROL DATA



Top: Western Blot detection of AMACR proteins in Jurkat and LNCaP cell lysates using AMACR Antibody (A). **Middle:** This antibody stains paraffin-embedded both human normal (top) and prostate cancer tissues in immunohistochemical assay (bottom). **Bottom:** It also stains LNCaP cells (Green) in confocal immunofluorescent analysis. Actin filament:Red;QRDA5 fluorescent DNA dye: Blue (B).

