

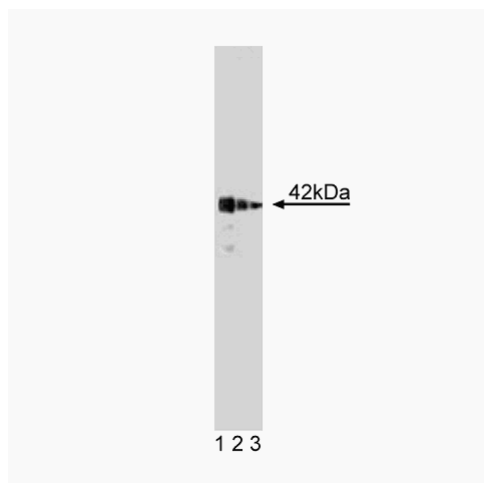
Technical Data Sheet

Purified Mouse Anti- α -Methylacyl-CoA Racemase**Product Information**

Material Number:	612083
Alternate Name:	AMACR
Size:	150 μ g
Concentration:	250 μ g/ml
Clone:	15/ α -Methylacyl-CoA Racemase
Immunogen:	Human α -Methylacyl-CoA Racemase aa.139-229
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Mouse Tested in Development: Human, Rat
Target MW:	42 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and $\leq 0.09\%$ sodium azide.

Description

α -methylacyl-CoA Racemase (AMACR) catalyzes the racemization of α -methyl-branched carboxylic acid coenzyme A thioesters. This enzymatic function is involved with biosynthesis of bile acids in the mitochondria and peroxisomes. AMACR converts pristanoyl-CoA and C27-bile acyl-CoAs to their (S)-stereoisomers, which are the only stereoisomers degraded by peroxisomal α -oxidation. Interestingly, AMACR mutations have been linked to some sensory motor neuropathies where accumulation of fatty acids and AMACR deficiencies correlate with pathogenesis. AMACR contains an N-terminal region required for mitochondrial localization, and a C-terminal peroxisomal targeting signal type 1 (PTS). AMACR mRNA is expressed preferentially in human, rat, and mouse liver and kidney, but the percentage of AMACR enzymatic activity found in the mitochondria relative to the peroxisomes differs depending on the species. Thus, AMACR is an enzyme critical for fatty acid degradation, and bile formation.



Western blot analysis of α -Methylacyl-CoA Racemase on a mouse liver lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1: 1000 dilution of the mouse anti- α -Methylacyl-CoA Racemase antibody.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at -20°C .

Application Notes**Application**

Western blot	Routinely Tested
Immunofluorescence	Not Recommended

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Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmlngen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
611458	Mouse Liver Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmlngen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Ferdinandusse S, Denis S, Clayton PT. Mutations in the gene encoding peroxisomal alpha-methylacyl-CoA racemase cause adult-onset sensory motor neuropathy. *Nat Genet.* 2000; 24(2):188-191.(Biology)
Kotti TJ, Savolainen K, Helander HM. In mouse alpha -methylacyl-CoA racemase, the same gene product is simultaneously located in mitochondria and peroxisomes. *J Biol Chem.* 2000; 275(27):20887-20895.(Biology)