

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human α -Methylacyl-CoA Racemase/AMACR in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human α -Methylacyl-CoA Racemase/AMACR Met1-Leu382 Accession # Q9UHK6
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

AMACR (Alpha-MethylAcyl-CoA Racemase; also 2-methylacyl racemase) is a 43-46 kDa member of the CaiB/BaiF CoA-transferase family of enzymes. It is widely expressed, being found in fibroblasts, hepatocytes, plus tumorigenic prostatic and colonic epithelium. Within these cells, it is localized to peroxisomes (organelles that participate in the breakdown fatty acids into 2-carbon blocks) and occasionally mitochondria, and appears to racemize 2-methyl-branched fatty acids. This ability is necessary for the degradation of branched fatty acids such as C19 dietary pristanic acid. Pristanic acid occurs in both an S- and R-methylated stereoisomer, but can only be initially degraded in the S- isomeric form. AMACR converts the R- to the S-isomer, initiating fatty acid processing. Human AMACR(-IA) is 382 amino acids (aa) in length. It contains an N-terminal mitochondrial targeting sequence (aa 22-85) that overlaps the enzymatic region (aa 53-231), and a C-terminal peroxisomal targeting motif (aa 379-382). There are multiple potential splice variants. Over aa 132-382, there are three aa substitutions, one that is 66 aa in length (AMACR-IB), a second that is 147 aa in length (AMACR-IIB), and a third that is 98 aa in length. Over aa 249-382, there are two aa substitutions, one that is 13 aa in length (AMACR-IIAs), and another that is 41 aa in length (AMACR-IIA). There is also a sixth potential splice variant that shows a 16 aa substitution for aa 378-382. Full-length human AMACR(-IA) shares 77% aa sequence identity with mouse AMACR.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.