Human α-Methylacyl-CoA Racemase/AMACR Alexa Fluor® 700-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7508N
100 µg

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	*E. coli*-derived recombinant human α-Methylacyl-CoA Racemase/AMACR Met1-Leu382 Accession # Q9UHK6
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 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-isoform, 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

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