

Datasheet: VMA00962

BATCH NUMBER 100005720

Description:	MOUSE ANTI ACAT1
Specificity:	ACAT1
Format:	Purified
Product Type:	PrecisionAb Monoclonal
Clone:	AB02/4H6
Isotype:	IgG1
Quantity:	100 µl

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Western Blotting	▪			1/1000

The PrecisionAb label is reserved for antibodies that meet the defined performance criteria within Bio-Rad's ongoing antibody validation programme. Click [here](#) to learn how we validate our PrecisionAb range. Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Further optimization may be required dependent on sample type.

Target Species	Human
Species Cross Reactivity	Reacts with: Mouse, Rat N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.
Product Form	Purified IgG - Liquid
Preparation	Mouse monoclonal antibody affinity purified on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative	0.09% Sodium Azide

Stabilisers

Approx. Protein Concentrations IgG concentration 1.0 mg/ml

Immunogen *E. coli*-derived recombinant protein of amino acids 134-427 of human ACAT1

External Database Links

UniProt:

[P24752](#) [Related reagents](#)

Entrez Gene:

[38](#) ACAT1 [Related reagents](#)

Synonyms ACAT, MAT

Fusion Partners Spleen cells from immunised BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line

Specificity **Mouse anti ACAT1 antibody** recognizes acetyl-CoA acetyltransferase, mitochondrial, also known as ACAT, MAT. ACAT1 is one of two ACAT proteins, ACAT1 is the mitochondrial ACAT protein whereas ACAT2 is cytosolic. ACAT1 is ubiquitously expressed, but especially expressed in steroidogenic organs and macrophages. This protein appears to be involved with catalyzing specific reactions of ketogenesis and ketolysis, and is also involved with isoleucine degradation ([Goudarzi et al. 2019](#)). Because ketone bodies are an important source of energy during low nutrient intake, ACAT1 is involved with the cellular response to fasting or starvation ([Chen et al. 2019](#)). Loss of ACAT1 in bone marrow cells has been found to attenuate atherosclerosis ([Yamazaki et al. 2019](#)). In addition, blocking ACAT1 in a mouse model appears to have multiple benefits for Alzheimer's Disease, and has been suggested as a therapeutic target. Blocking ACAT1 has been found to upregulate autophagy and diminishes the production of amyloid-beta peptides, peptides which trigger neurotoxicity along with tau ([Shibuya et al. 2015](#)).

Western Blotting Mouse anti ACAT1 detects a band of approximately 40 kDa in HepG2 cell lysates

Storage Store undiluted at -20°C, avoiding repeated freeze thaw cycles

Guarantee 12 months from date of despatch

Acknowledgements PrecisionAb is a trademark of Bio-Rad Laboratories

Health And Safety Information Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/VMA00962>
Antibody (10040)

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (H/L) (STAR207...) [HRP](#)

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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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