

## Datasheet: VMA00962

<b>Description:</b>	MOUSE ANTI ACAT1
<b>Specificity:</b>	ACAT1
<b>Format:</b>	Purified
<b>Product Type:</b>	PrecisionAb Monoclonal
<b>Clone:</b>	AB02/4H6
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://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 Stabilisers

0.09% Sodium Azide

<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant protein of amino acids 134-427 of human ACAT1
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P24752</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">38</a> ACAT1    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	ACAT, MAT
<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line
<b>Specificity</b>	<p><b>Mouse anti ACAT1 antibody</b> 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 (<a href="#">Goudarzi et al. 2019</a>). Because ketone bodies are an important source of energy during low nutrient intake, ACAT1 is involved with the cellular response to fasting or starvation (<a href="#">Chen et al. 2019</a>). Loss of ACAT1 in bone marrow cells has been found to attenuate atherosclerosis (<a href="#">Yamazaki et al. 2019</a>). 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 (<a href="#">Shibuya et al. 2015</a>).</p>
<b>Western Blotting</b>	Mouse anti ACAT1 detects a band of approximately 40 kDa in HepG2 cell lysates
<b>Storage</b>	Store undiluted at -20°C, avoiding repeated freeze thaw cycles
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	PrecisionAb is a trademark of Bio-Rad Laboratories
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/VMA00962">https://www.bio-rad-antibodies.com/SDS/VMA00962</a> Antibody (10040)
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

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

## Recommended Negative Controls

### MOUSE IgG1 NEGATIVE CONTROL (MCA928)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

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Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

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