

## ACSM1 Antibody (N-term) Blocking Peptide

Synthetic peptide  
Catalog # BP9284a

### Specification

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#### ACSM1 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession [Q08AH1](#)

#### ACSM1 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 116285

##### Other Names

Acyl-coenzyme A synthetase ACSM1, mitochondrial, Acyl-CoA synthetase medium-chain family member 1, Butyrate--CoA ligase 1, Butyryl-coenzyme A synthetase 1, Lipoate-activating enzyme, Middle-chain acyl-CoA synthetase 1, ACSM1, BUCS1, LAE, MACS1

##### Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP9284a](/products/AP9284a) was selected from the N-term region of human ACSM1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

##### Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

##### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

##### Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

#### ACSM1 Antibody (N-term) Blocking Peptide - Protein Information

Name ACSM1

Synonyms BUCS1, LAE {ECO:0000250|UniProtKB:Q9BEA2}

##### Function

Catalyzes the activation of fatty acids by CoA to produce an acyl-CoA, the first step in fatty acid metabolism (PubMed: <http://www.uniprot.org/citations/10434065> target="\_blank">10434065</a>). Capable of activating medium-chain fatty acids (e.g. butyric (C4) to decanoic (C10) acids), and certain carboxylate-containing xenobiotics, e.g. benzoate (PubMed: <http://www.uniprot.org/citations/10434065> target="\_blank">10434065</a>). Also catalyzes the activation of lipoate to lipoyl-nucleoside monophosphate (By similarity). Activates lipoate with GTP at a 1000-fold higher rate than with ATP and activates both (R)- and (S)-lipoate to the respective lipoyl-GMP, with a preference for (R)-lipoate (By similarity).

**Cellular Location**

Mitochondrion matrix {ECO:0000250|UniProtKB:Q91VA0}. Mitochondrion  
{ECO:0000250|UniProtKB:Q91VA0}

**ACSM1 Antibody (N-term) Blocking Peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

**ACSM1 Antibody (N-term) Blocking Peptide - Images****ACSM1 Antibody (N-term) Blocking Peptide - Background**

ACSM1 has medium-chain fatty acid:CoA ligase activity with broad substrate specificity (in vitro). This protein acts on acids from C(4) to C(11) and on the corresponding 3-hydroxy-and 2,3-or 3,4-unsaturated acids (in vitro). This protein functions as GTP-dependent lipoate-activating enzyme that generates the substrate for lipoyltransferase

**ACSM1 Antibody (N-term) Blocking Peptide - References**

Celis,J.E., et.al., Mol. Cell Proteomics 7 (10), 1795-1809 (2008)Sullivan,P.F., et.al., Mol. Psychiatry 13 (6), 570-584 (2008)Haketa,A., et.al., J. Hypertens. 22 (10), 1903-1907 (2004)