

ACSM1 Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9284a**Specification**

ACSM1 Antibody (N-term) - Product Information

| | |
|-------------------|------------------------|
| Application | WB, FC,E |
| Primary Accession | Q08AH1 |
| Reactivity | Human |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | Rabbit IgG |
| Calculated MW | 65273 |
| Antigen Region | 21-48 |

ACSM1 Antibody (N-term) - 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

This ACSM1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 21-48 amino acids from the N-terminal region of human ACSM1.

Dilution

WB~~1:1000
FC~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

ACSM1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

ACSM1 Antibody (N-term) - 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:[10434065](#)). Capable of activating medium-chain fatty acids (e.g. butyric (C4) to decanoic (C10) acids), and certain carboxylate-containing xenobiotics, e.g. benzoate (PubMed:[10434065](#)). 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

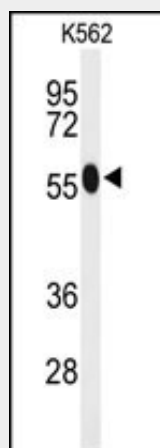
Mitochondrion matrix {ECO:0000250|UniProtKB:Q91VA0}. Mitochondrion {ECO:0000250|UniProtKB:Q91VA0}

ACSM1 Antibody (N-term) - Protocols

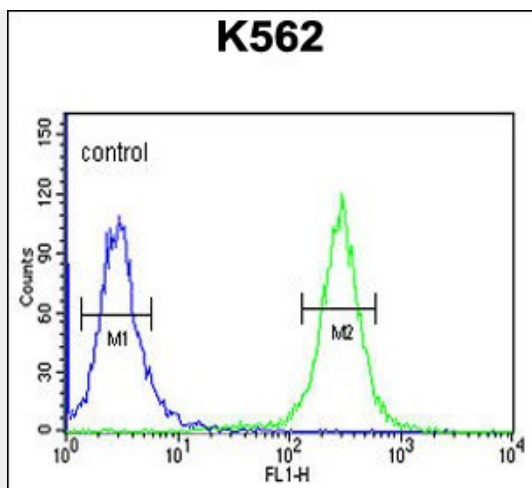
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ACSM1 Antibody (N-term) - Images



Western blot analysis of ACSM1 Antibody (N-term) (Cat. #AP9284a) in K562 cell line lysates (35ug/lane). ACSM1 (arrow) was detected using the purified Pab.



ACSM1 Antibody (N-term) (Cat. #AP9284a) flow cytometric analysis of K562 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

ACSM1 Antibody (N-term) - 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) - 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)