

**ACSS2 antibody - C-terminal region**  
**Rabbit Polyclonal Antibody**  
**Catalog # AI14617****Specification**

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**ACSS2 antibody - C-terminal region - Product Information**

Application	WB
Primary Accession	<a href="#">O9NR19</a>
Other Accession	<a href="#">NM_001076552</a> , <a href="#">NP_001070020</a>
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Goat, Horse, Bovine, Guinea Pig, Dog
Predicted	Human, Mouse, Rat, Rabbit, Pig, Horse, Bovine, Guinea Pig, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	73kDa KDa

**ACSS2 antibody - C-terminal region - Additional Information****Gene ID** 55902**Alias Symbol** ACAS2, ACECS, ACS, ACSA, DKFZp762G026, dj1161H23.1**Other Names**

Acetyl-coenzyme A synthetase, cytoplasmic, 6.2.1.1, Acetate--CoA ligase, Acetyl-CoA synthetase, ACS, AceCS, Acyl-CoA synthetase short-chain family member 2, Acyl-activating enzyme, ACSS2, ACAS2

**Format**

Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

**Reconstitution & Storage**

Add 50 ul of distilled water. Final anti-ACSS2 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.

**Precautions**

ACSS2 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

**ACSS2 antibody - C-terminal region - Protein Information****Name** ACSS2**Synonyms** ACAS2**Function**

Catalyzes the synthesis of acetyl-CoA from short-chain fatty acids (PubMed:&lt;a href="http://www.uniprot.org/citations/10843999" target="\_blank"&gt;10843999&lt;/a&gt;, PubMed:&lt;a href="http://www.uniprot.org/citations/10843999" target="\_blank"&gt;10843999&lt;/a&gt;)

[28003429](http://www.uniprot.org/citations/28003429), PubMed: [28552616](http://www.uniprot.org/citations/28552616)). Acetate is the preferred substrate (PubMed: [10843999](http://www.uniprot.org/citations/10843999), PubMed: [28003429](http://www.uniprot.org/citations/28003429)). Can also utilize propionate with a much lower affinity (By similarity). Nuclear ACSS2 promotes glucose deprivation-induced lysosomal biogenesis and autophagy, tumor cell survival and brain tumorigenesis (PubMed: [28552616](http://www.uniprot.org/citations/28552616)). Glucose deprivation results in AMPK-mediated phosphorylation of ACSS2 leading to its translocation to the nucleus where it binds to TFEB and locally produces acetyl-CoA for histone acetylation in the promoter regions of TFEB target genes thereby activating their transcription (PubMed: [28552616](http://www.uniprot.org/citations/28552616)). The regulation of genes associated with autophagy and lysosomal activity through ACSS2 is important for brain tumorigenesis and tumor survival (PubMed: [28552616](http://www.uniprot.org/citations/28552616)). Acts as a chromatin-bound transcriptional coactivator that up-regulates histone acetylation and expression of neuronal genes (By similarity). Can be recruited to the loci of memory-related neuronal genes to maintain a local acetyl-CoA pool, providing the substrate for histone acetylation and promoting the expression of specific genes, which is essential for maintaining long-term spatial memory (By similarity).

#### Cellular Location

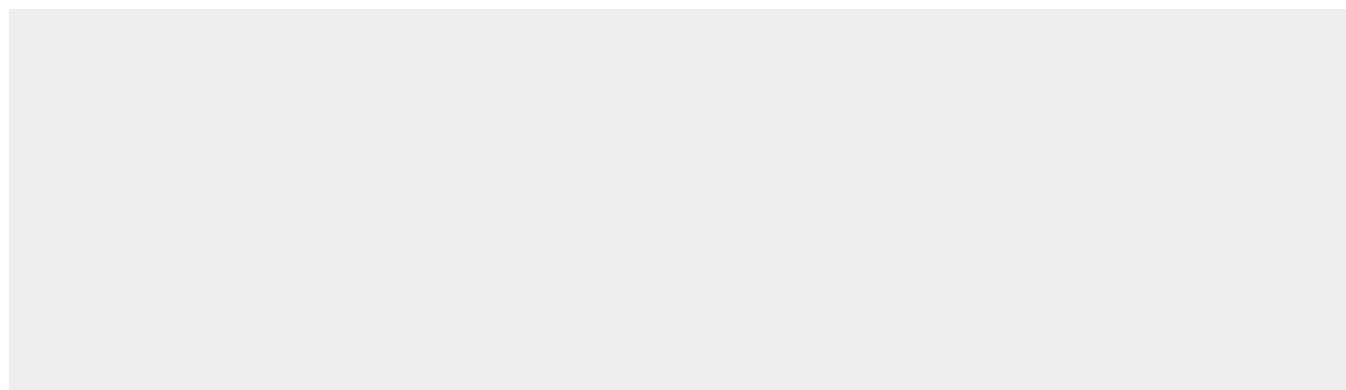
Cytoplasm, cytosol. Cytoplasm {ECO:0000250|UniProtKB:Q9QXG4}. Nucleus Note=Glucose deprivation results in its AMPK-dependent phosphorylation and subsequent nuclear translocation (PubMed:28552616). Phosphorylation at Ser-659, leads to exposure of its nuclear localization signal which is required for its interaction with KPNA1 and subsequent translocation to the nucleus (PubMed:28552616). Found in the cytoplasm in undifferentiated neurons and upon differentiation, translocates to nucleus (By similarity). {ECO:0000250|UniProtKB:Q9QXG4, ECO:0000269|PubMed:28552616}

#### ACSS2 antibody - C-terminal region - 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](#)

#### ACSS2 antibody - C-terminal region - Images





WB Suggested Anti-ACSS2 Antibody Titration: 1.0 µg/ml  
Positive Control: Fetal Heart

#### **ACSS2 antibody - C-terminal region - References**

- Luong A.,et al.J. Biol. Chem. 275:26458-26466(2000).  
Ota T.,et al.Nat. Genet. 36:40-45(2004).  
Deloukas P.,et al.Nature 414:865-871(2001).  
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.  
Zahedi R.P.,et al.J. Proteome Res. 7:526-534(2008).