

Anti-ACSS2/Acetyl Coa Synthetase Rabbit Monoclonal Antibody Catalog # ABO13722

Specification

Anti-ACSS2/Acetyl Coa Synthetase Rabbit Monoclonal Antibody - Product Information

| | |
|-------------------|------------------------|
| Application | WB, IF, ICC |
| Primary Accession | O9NR19 |
| Host | Rabbit |
| Isotype | Rabbit IgG |
| Reactivity | Rat, Human, Mouse |
| Clonality | Monoclonal |
| Format | Liquid |

Description

Anti-ACSS2/Acetyl Coa Synthetase Rabbit Monoclonal Antibody . Tested in WB, ICC/IF applications. This antibody reacts with Human, Mouse, Rat.

Anti-ACSS2/Acetyl Coa Synthetase Rabbit Monoclonal Antibody - Additional Information

Gene ID 55902

Other Names

Acetyl-coenzyme A synthetase, cytoplasmic, 6.2.1.1, Acetate--CoA ligase, Acetyl-CoA synthetase, ACS, AceCS, Acetyl-CoA synthetase 1, ACSS2, ACAS2

Calculated MW

78580 MW KDa

Application Details

WB 1:500-1:2000
ICC/IF 1:50-1:200

Subcellular Localization

Cytoplasm.

Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen

A synthesized peptide derived from human ACSS2

Purification

Affinity-chromatography

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Anti-ACSS2/Acetyl Coa Synthetase Rabbit Monoclonal Antibody - Protein Information

Name ACSS2

Synonyms ACAS2

Function

Catalyzes the synthesis of acetyl-CoA from short-chain fatty acids (PubMed:10843999, PubMed:28003429, PubMed:28552616). Acetate is the preferred substrate (PubMed:10843999, PubMed: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). 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). The regulation of genes associated with autophagy and lysosomal activity through ACSS2 is important for brain tumorigenesis and tumor survival (PubMed: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

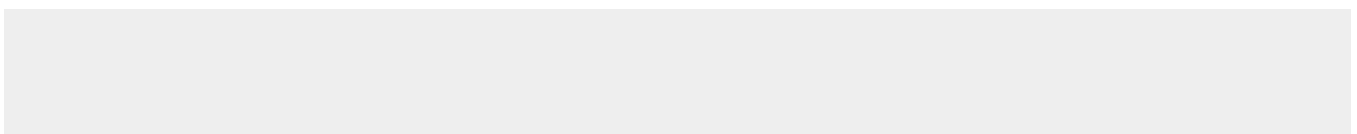
Cytoplasm, cytosol. Cytoplasm {ECO:0000250|UniProtKB:Q9QXG4}. Nucleus Note=Glucose deprivation results in its AMPK-dependent phosphorylation and subsequent nuclear translocation (PubMed:28552616). Phosphorylation at Ser-659, leads to exposure of its nuclear localization signal which is required for its 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}

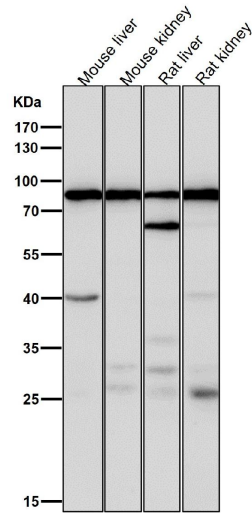
Anti-ACSS2/Acetyl Coa Synthetase Rabbit Monoclonal Antibody - Protocols

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

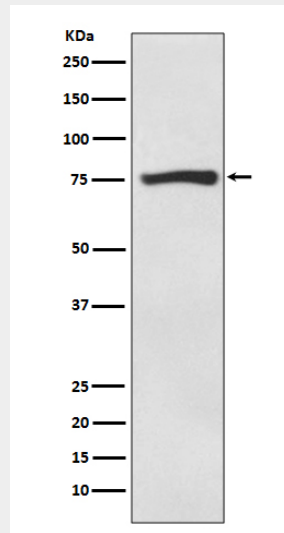
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-ACSS2/Acetyl Coa Synthetase Rabbit Monoclonal Antibody - Images





All lanes use the Antibody at 1:2K dilution for 1 hour at room temperature.



Western blot analysis of ACSS2 expression in HepG2 cell lysate.