

**Goat Anti-ACSL5 Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF1020a****Specification**

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**Goat Anti-ACSL5 Antibody - Product Information**

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|-------------------|---------------------------------------------------|
| Application       | WB                                                |
| Primary Accession | <a href="#">O9ULC5</a>                            |
| Other Accession   | <a href="#">NP_976314</a> , <a href="#">51703</a> |
| Reactivity        | Human                                             |
| Host              | Goat                                              |
| Clonality         | Polyclonal                                        |
| Concentration     | 100ug/200ul                                       |
| Isotype           | IgG                                               |
| Calculated MW     | 75991                                             |

**Goat Anti-ACSL5 Antibody - Additional Information****Gene ID** 51703**Other Names**

Long-chain-fatty-acid--CoA ligase 5, 6.2.1.3, Long-chain acyl-CoA synthetase 5, LACS 5, ACSL5, ACS5, FACL5

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-ACSL5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-ACSL5 Antibody - Protein Information****Name** ACSL5 ([HGNC:16526](#))**Function**

Catalyzes the conversion of long-chain fatty acids to their active form acyl-CoAs for both synthesis of cellular lipids, and degradation via beta-oxidation (PubMed:<a href="http://www.uniprot.org/citations/17681178" target="\_blank">17681178</a>, PubMed:<a href="http://www.uniprot.org/citations/24269233" target="\_blank">24269233</a>, PubMed:<a href="http://www.uniprot.org/citations/22633490" target="\_blank">22633490</a>, PubMed:<a href="http://www.uniprot.org/citations/33191500" target="\_blank">33191500</a>). ACSL5 may

activate fatty acids from exogenous sources for the synthesis of triacylglycerol destined for intracellular storage (By similarity). Utilizes a wide range of saturated fatty acids with a preference for C16-C18 unsaturated fatty acids (By similarity). It was suggested that it may also stimulate fatty acid oxidation (By similarity). At the villus tip of the crypt- villus axis of the small intestine may sensitize epithelial cells to apoptosis specifically triggered by the death ligand TRAIL. May have a role in the survival of glioma cells.

#### Cellular Location

Mitochondrion. Endoplasmic reticulum. Mitochondrion outer membrane; Single-pass type III membrane protein Endoplasmic reticulum membrane; Single-pass type III membrane protein. Cell membrane

### Goat Anti-ACSL5 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](#)

### Goat Anti-ACSL5 Antibody - Images



AF1020a (1 µg/ml) staining of human spleen lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

### Goat Anti-ACSL5 Antibody - Background

The protein encoded by this gene is an isozyme of the long-chain fatty-acid-coenzyme A ligase family. Although differing in substrate specificity, subcellular localization, and tissue distribution, all isozymes of this family convert free long-chain fatty acids into fatty acyl-CoA esters, and thereby play a key role in lipid biosynthesis and fatty acid degradation. This isozyme is highly expressed in uterus and spleen, and in trace amounts in normal brain, but has markedly increased levels in malignant gliomas. This gene functions in mediating fatty acid-induced glioma cell growth. Three transcript variants encoding two different isoforms have been found for this gene.

## **Goat Anti-ACSL5 Antibody - References**

Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. Rose JE, et al. Mol Med, 2010 Jul-Aug. PMID 20379614.

Functional characterization of a promoter polymorphism that drives ACSL5 gene expression in skeletal muscle and associates with diet-induced weight loss. Teng AC, et al. FASEB J, 2009 Jun. PMID 19218499.

Promotion of glioma cell survival by acyl-CoA synthetase 5 under extracellular acidosis conditions. Mashima T, et al. Oncogene, 2009 Jan 8. PMID 18806831.

Expression of acyl-CoA synthetase 5 in human epidermis. Gaisa NT, et al. Histol Histopathol, 2008 Apr. PMID 18228202.

Transcriptional activation of hepatic ACSL3 and ACSL5 by oncostatin m reduces hypertriglyceridemia through enhanced beta-oxidation. Zhou Y, et al. Arterioscler Thromb Vasc Biol, 2007 Oct. PMID 17761945.