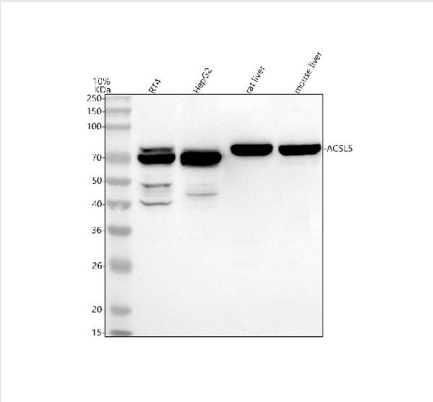
ACSL5 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

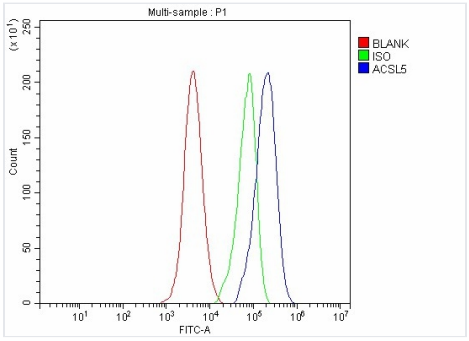
Product Name	ACSL5, Polyclonal Antibody
Full Product Name	Anti-ACSL5 Antibody Picoband
Product Gene Name	anti-ACSL5 antibody
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Purity/Purification	Immunogen affinity purified.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.
Molecular Weight	683
OMIM	605677
3D Structure	ModBase 3D Structure for Q9ULC5
Immunogen	E coli-derived human ACSL5 recombinant protein (Position: Y108-D683). Human ACSL5 shares 80.7% and 80.2% amino acid (aa) sequence identity with mouse and rat ACSL5, respectively.
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Product Categories/Family for anti-ACSL5 antibody	Primary Antibodies
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-ACSL5 antibody	Western Blot (WB), Flow Cytometry (FC/FACS), ELISA (EIA)
Application Notes for anti-ACSL5 antibody	WB: 0.25-0.5ug/ml, Human, Mouse, Rat FC/FACS (Fixed): 1-3ug/1x10^6 cells, Human ELISA: 0.1-0.5ug/ml
Related Product Information for anti-ACSL5 antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product References and Citations for anti-ACSL5 antibody	1. Al-Thihli, K., Afting, C., Al-Hashmi, N., Mohammed, M., Sliwinski, S., Al Shibli, N., Al-Said, K., Al-Kasbi, G., Al-Kharusi, K., Merle, U., Fullekrug, J., Al-Maawali, A. Deficiency of acyl-CoA synthetase 5 is associated with a severe and treatable failure to thrive of neonatal onset. Clin. Genet. 99: 376-383, 2021. 2. O'Brien, M. J., Beijerink, N. J., Sansom, M., Thornton, S. W., Chew, T., Wade, C. M. A large deletion on CFA28 omitting ACSL5 gene is associated with intestinal lipid malabsorption in the Australian Kelpie dog breed. Sci. Rep. 10: 18223, 2020. 3. Oikawa, E., Iijima, H., Suzuki, T., Sasano, H., Sato, H., Kamataki, A., Nagura, H., Kang, M. J., Fujino, T., Suzuki, H., Yamamoto, T. T. A novel acyl-CoA synthetase, ACS5, expressed in intestinal epithelial cells and proliferating preadipocytes. J. Biochem. 124: 679-685, 1998.
Other Notes	Small volumes of anti-ACSL5 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for ACSL5 purchase	MBS1758567 is an antibody targeting ACSL5. Also known as Anti-ACSL5 Antibody Picoband. Reactive in Human, Mouse, Rat. Host: Rabbit.



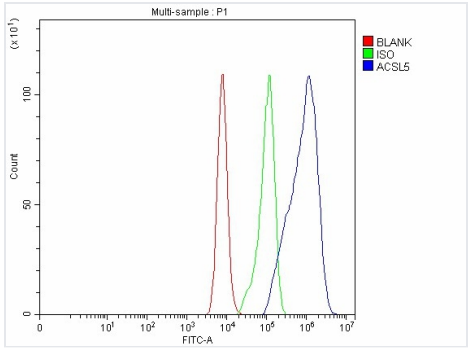
Western Blot (WB) of anti-ACSL5 antibody

Figure 1. Western blot analysis of ACSL5 using anti-ACSL5 antibody (MBS1758567).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: human RT4 whole cell lysates,Lane 2: human HepG2 whole cell lysates,Lane 3: rat liver tissue lysates,Lane 4: mouse liver tissue lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-ACSL5 antigen affinity purified polyclonal antibody (#MBS1758567) at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (#MBS176460) with Tanon 5200 system. A specific band was detected for ACSL5 at approximately 76 kDa. The expected band size for ACSL5 is at 76 kDa.



Flow Cytometry (FC/FACS) of anti-ACSL5 antibody

Figure 3. Flow Cytometry analysis of Hela cells using anti-ACSL5 antibody (MBS1758567).Overlay histogram showing Hela cells stained with MBS1758567 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-ACSL5 Antibody (MBS1758567, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (MBS177405, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Flow Cytometry (FC/FACS) of anti-ACSL5 antibody

Figure 2. Flow Cytometry analysis of Caco-2 cells using anti-ACSL5 antibody (MBS1758567).Overlay histogram showing Caco-2 cells stained with MBS1758567 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-ACSL5 Antibody (MBS1758567, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (MBS177405, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ACSL5. It may not necessarily be applicable to this product.

NCBI GI #	13431659
NCBI GeneID	51703
NCBI Accession #	Q9ULC5.1
UniProt Primary Accession #	Q9ULC5

UniProt Secondary Accession #	Q6UX44; Q9UIU4; A6GV77; D3DRB3
UniProt Related Accession #	Q9ULC5
NCBI Official Full Name	Long-chain-fatty-acid--CoA ligase 5
NCBI Official Synonym Full Names	acyl-CoA synthetase long-chain family member 5
NCBI Official Symbol	ACSL5
NCBI Official Synonym Symbols	ACS2; ACS5; FACL5
UniProt Protein Name	Long-chain-fatty-acid--CoA ligase 5
UniProt Synonym Protein Names	Long-chain acyl-CoA synthetase 5; LACS 5
Protein Family	Long-chain-fatty-acid--CoA ligase
UniProt Gene Name	ACSL5
UniProt Synonym Gene Names	ACS5; FACL5; LACS 5
UniProt Entry Name	ACSL5_HUMAN
NCBI Protein Information	long-chain-fatty-acid--CoA ligase 5; LACS 5; fatty acid coenzyme A ligase 5; long-chain acyl-CoA synthetase 5; FACL5 for fatty acid coenzyme A ligase 5; long-chain fatty acid coenzyme A ligase 5; fatty-acid-Coenzyme A ligase, long-chain 5
NCBI Summary for ACSL5	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. [provided by RefSeq, Jul 2008]
UniProt Comments for ACSL5	ACSL5: Acyl-CoA synthetases (ACSL) activate long-chain fatty acids for both synthesis of cellular lipids, and degradation via beta-oxidation. ACSL5 may activate fatty acids from exogenous sources for the synthesis of triacylglycerol destined for intracellular storage. Utilizes a wide range of saturated fatty acids with a preference for C16-C18 unsaturated fatty acids. It was suggested that it may also stimulate fatty acid oxidation. 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. Belongs to the ATP-dependent AMP-binding enzyme family. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Lipid Metabolism - fatty acid; Membrane protein, integral; Ligase; Mitochondrial; EC 6.2.1.3 Chromosomal Location of Human Ortholog: 10q25.2 Cellular Component: endoplasmic reticulum membrane; mitochondrial outer membrane; mitochondrion; membrane; endoplasmic reticulum; mitochondrial inner membrane; nucleolus; integral to membrane; nucleus Molecular Function: ATP binding; long-chain-fatty-acid-CoA ligase activity Biological Process: triacylglycerol biosynthetic process; cellular lipid metabolic process; long-chain fatty acid metabolic process
Research Articles on ACSL5	**1.** Down-regulation of ACSL5 is associated with colorectal cancer.
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