Anti-ACSL5 Antibody [A9D3-R] - BSA and Azide free

HA610053

Product Type:	Recombinant Mouse monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 76 kDa
Clone number:	A9D3-R

Description: Long-chain-fatty-acid—CoA ligase 5 is an enzyme that in humans is encoded by the ACSL5 gene. 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.

Immunogen: Recombinant protein within human ACSL5 aa 151-350 / 683.

Positive control: Mouse liver tissue lysate, rat liver tissue lysate, mouse white adipose tissue lysate, mouse brown adipose tissue lysate, human liver tissue, mouse liver tissue, rat liver tissue.

Subcellular location: Mitochondrion, Endoplasmic reticulum, Mitochondrion outer membrane, Endoplasmic reticulum membrane, Cell membrane.

Database links: SwissProt: Q9ULC5 Human | Q8JZR0 Mouse | O88813 Rat

Recommended Dilutions:

WB	1:1,000
IHC-P	1:1,000

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

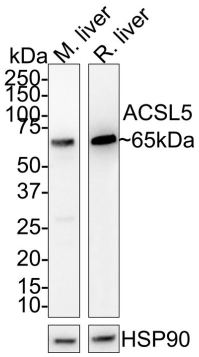

Fig1: Western blot analysis of ACSL5 on different lysates with Mouse anti-ACSL5 antibody (HA610053) at 1/1,000 dilution.

Lane 1: Mouse liver tissue lysate
Lane 2: Rat liver tissue lysate

Lysates/proteins at 30 µg/Lane.

Predicted band size: 76 kDa
Observed band size: 65 kDa

Exposure time: 1 minute;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA610053) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1:100,000 dilution was used for 1 hour at room temperature.

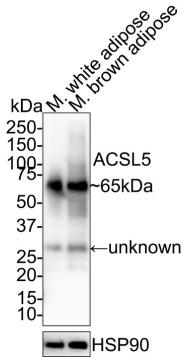

Fig2: Western blot analysis of ACSL5 on different lysates with Mouse anti-ACSL5 antibody (HA610053) at 1/1,000 dilution.

Lane 1: Mouse white adipose tissue lysate
Lane 2: Mouse brown adipose tissue lysate

Lysates/proteins at 30 µg/Lane.

Predicted band size: 76 kDa
Observed band size: 65 kDa

Exposure time: 24 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA610053) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1:50,000 dilution was used for 1 hour at room temperature.

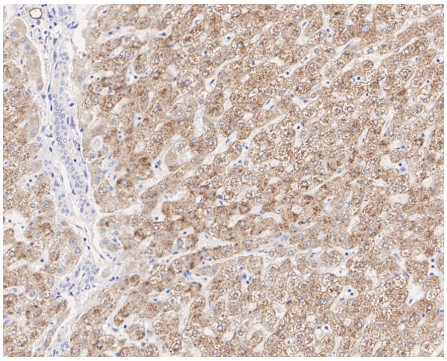

Fig3: Immunohistochemical analysis of paraffin-embedded human liver tissue with Mouse anti-ACSL5 antibody (HA610053) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA610053) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

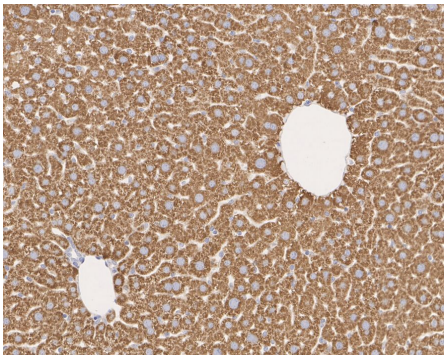

Fig4: Immunohistochemical analysis of paraffin-embedded mouse liver tissue with Mouse anti-ACSL5 antibody (HA610053) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA610053) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

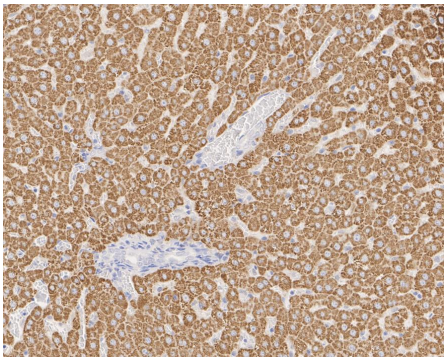

Fig5: Immunohistochemical analysis of paraffin-embedded rat liver tissue with Mouse anti-ACSL5 antibody (HA610053) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA610053) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Hou T et al. Cytoplasmic SIRT6-mediated ACSL5 deacetylation impedes nonalcoholic fatty liver disease by facilitating hepatic fatty acid oxidation. Mol Cell. 2022 Nov
2. Luo Q et al. Role of ACSL5 in fatty acid metabolism. Heliyon. 2023 Jan