

# Anti-ACSL3 Antibody [A8F7]

HA601070



<b>Product Type:</b>	Mouse monoclonal IgG1, primary antibodies
<b>Species reactivity:</b>	Human
<b>Applications:</b>	WB, IHC-P
<b>Molecular Wt:</b>	Predicted band size: 80 kDa
<b>Clone number:</b>	A8F7

**Description:** Acyl-CoA synthetases (ACSL) activates long-chain fatty acids for both synthesis of cellular lipids, and degradation via beta-oxidation. Required for the incorporation of fatty acids into phosphatidylcholine, the major phospholipid located on the surface of VLDL. Has mainly an anabolic role in energy metabolism. Mediates hepatic lipogenesis. Preferentially uses myristate, laurate, arachidonate and eicosapentaenoate as substrates. Both isoforms exhibit the same level of activity (By similarity). 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 brain, and preferentially utilizes myristate, arachidonate, and eicosapentaenoate as substrates. The amino acid sequence of this isozyme is 92% identical to that of rat homolog. Two transcript variants encoding the same protein have been found for this gene.

**Immunogen:** Recombinant protein within human ACSL3 aa 180-380.

**Positive control:** K562 cell lysates, Hela cell lysates, 293T cell lysates, human liver tissue.

**Subcellular location:** Mitochondrion, Peroxisome, Endoplasmic reticulum.

**Database links:** SwissProt: O95573 Human | Q9CZW4 Mouse | Q63151 Rat

**Recommended Dilutions:**

<b>WB</b>	1:1,000-1:5,000
<b>IHC-P</b>	1:240

**Storage Buffer:** PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

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## Images

**Fig1:** Western blot analysis of ACSL3 on K562 cell lysates with Mouse anti-ACSL3 antibody (HA601070) at 1/1,000 dilution.

Lysates/proteins at 10 µg/Lane.

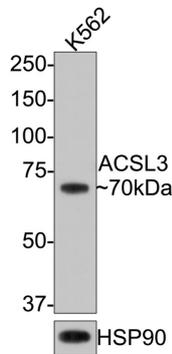
Predicted band size: 80 kDa

Observed band size: 70 kDa

Exposure time: 1 minute;

8% 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 (HA601070) 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 ACSL3 on HeLa cell lysates with Mouse anti-ACSL3 antibody (HA601070) at 1/5,000 dilution.

Lysates/proteins at 10 µg/Lane.

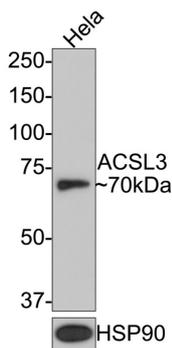
Predicted band size: 80 kDa

Observed band size: 70 kDa

Exposure time: 2 minutes;

8% 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 (HA601070) at 1/5,000 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.



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**Fig3:** Western blot analysis of ACSL3 on 293T cell lysates with Mouse anti-ACSL3 antibody (HA601070) at 1/1,000 dilution.

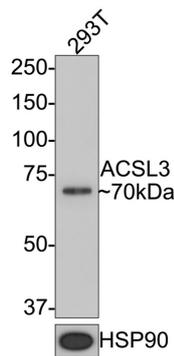
Lysates/proteins at 10 µg/Lane.

Predicted band size: 80 kDa

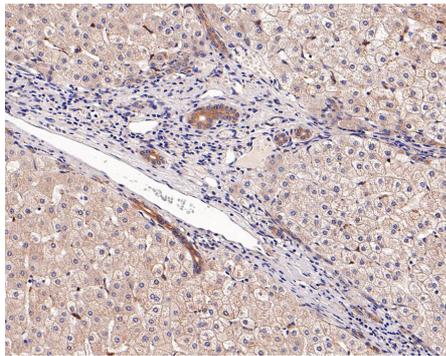
Observed band size: 70 kDa

Exposure time: 2 minutes;

8% 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 (HA601070) 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.



**Fig4:** Immunohistochemical analysis of paraffin-embedded human liver tissue with Mouse anti-ACSL3 antibody (HA601070) at 1/240 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<sub>2</sub>O and PBS, and then probed with the primary antibody (HA601070) at 1/240 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.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### Background References

1. Nakahara K., Ohkuni A., Kitamura T., Abe K., Naganuma T., Ohno Y., Zoeller R.A., Kihara A. The Sjogren-Larsson syndrome gene encodes a hexadecenal dehydrogenase of the sphingosine 1-phosphate degradation pathway. *Mol. Cell* 46:461-471(2012)
2. Yao H., Ye J. Long chain acyl-CoA synthetase 3-mediated phosphatidylcholine synthesis is required for assembly of very low density lipoproteins in human hepatoma Huh7 cells. *J. Biol. Chem.* 283:849-854(2008)

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