

# ACSL5 (m): 293T Lysate: sc-118222

## BACKGROUND

Acyl-CoA synthetases, also known as long-chain fatty-acid CoA synthases (FACL) or palmitoyl-CoA ligases, include ACSL1-6, which are all single-pass membrane proteins localizing to the mitochondrion, microsome or peroxisome. ACSL proteins are important for synthesis of cellular lipids and for  $\beta$ -oxidation degradation. Specifically, ACSL proteins catalyze the activation of long-chain fatty acids to acyl-CoAs, which can be metabolized to form  $\text{CO}_2$ , triacylglycerol (TAG), phospholipids (PL) and cholesteryl esters (CE). ACSL5 utilizes a wide range of saturated fatty acids with a preference for C16-C18 unsaturated fatty acids. It is highly expressed in uterus and spleen. A decrease in expression of ACSL5 is correlated with tumorigenesis, including endometrioid adenocarcinomas and colorectal carcinomas. ACSL5 is also useful as a differentiating marker in the gastrointestinal tract.

## REFERENCES

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2. Muoio, D.M., et al. 2001. Acyl-CoAs are functionally channeled in liver: potential role of acyl-CoA synthetase. *Am. J. Physiol. Endocrinol. Metab.* 279: E1366-E1373.
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4. Gassler, N., et al. 2003. Impaired expression of acyl-CoA-synthetase 5 in epithelial tumors of the small intestine. *Hum. Pathol.* 34: 1048-1052.
5. Gassler, N., et al. 2005. Expression of acyl-CoA synthetase 5 in human endometrium and in endometrioid adenocarcinomas. *Histopathology* 47: 501-507.
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## CHROMOSOMAL LOCATION

Genetic locus: *Acsf5* (mouse) mapping to 19 D2.

## PRODUCT

ACSL5 (m): 293T Lysate represents a lysate of mouse ACSL5 transfected 293T cells and is provided as 100  $\mu\text{g}$  protein in 200  $\mu\text{l}$  SDS-PAGE buffer.

## STORAGE

Store at  $-20^\circ\text{C}$ . Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## APPLICATIONS

ACSL5 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive ACSL5 antibodies. Recommended use: 10-20  $\mu\text{l}$  per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.