

Basic Information

Product Name	Anti-ACSL4/FACL4 Antibody (Clone#4I7)	
Gene Name	ACSL4	
Source	Mouse	
Clonality	Monoclonal	
Isotype	IgG1	
Species Reactivity	human	
Tested Application	WB, IHC, ICC/IF, FCM	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence of human FACL4/ACSL4.	
Concentration	500 ug/ml	
Purification	protein G purified.	
Observed MW	79 kDa	
Dilution Ratios	Western blot (WB):	1:500-2000
	Immunohistochemistry (IHC):	1:50-400
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:50-400
	Flow Cytometry (Fixed):	1:50-200
	(Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

Long-chain-fatty-acid—CoA ligase 4 is an enzyme that in humans is encoded by the ACSL4 gene. It is mapped to Xq23. 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 preferentially utilizes arachidonate as substrate. The absence of this enzyme may contribute to the cognitive disability or Alport syndrome. Alternative splicing of this gene generates multiple transcript variants.

Selected Validation Data

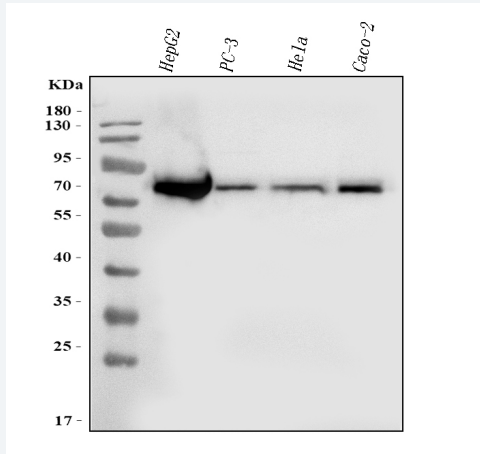


Figure 1. Western blot analysis of anti- ACSL4 Antibody (M04372). The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: HepG2 whole cell lysates,

Lane 3: PC-3 whole cell lysates,

Lane 4: Hela whole cell lysates,

Lane 5: Caco-2 whole cell lysates.

Use mouse anti- ACSL4 1:1000, probed with a goat anti- mouse IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001). A specific band was detected for ACSL4 at approximately 79KD. The expected band size for ACSL4 is at 68KD.

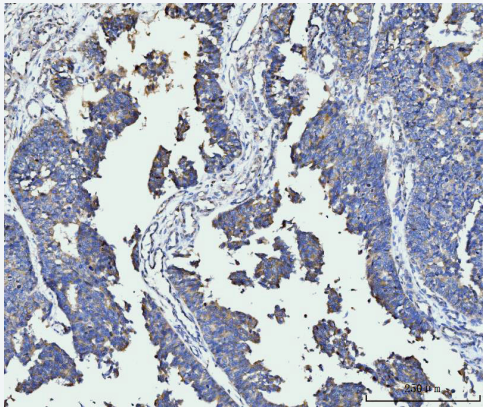


Figure 2. IHC analysis using anti- ACSL4 Antibody (M04372). detected in paraffin-embedded section of human Bladder epithelial carcinoma tissue. Biotinylated goat anti-mouse IgG was used as secondary antibody. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

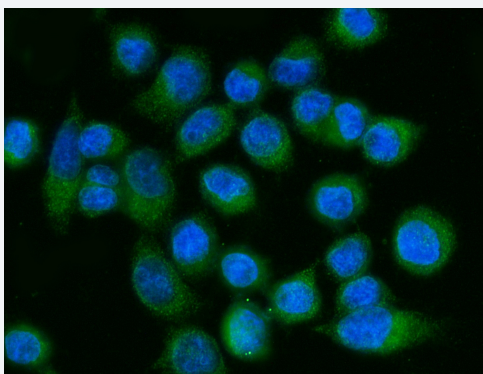


Figure 7. ICC analysis using anti- ACSL4 Antibody (M04372). was detected in immersion fixed SIHA cell. Cells were stained using the Dylight488-conjugated Anti-mouse IgG Secondary Antibody (green)(Catalog # BA1126) and counterstained with DAPI (blue).

Product datasheet
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(Clone#4I7)
Catalog Number: M04372

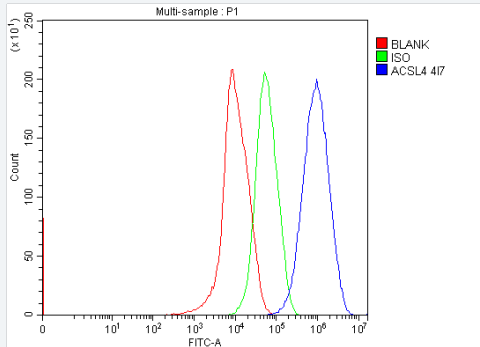


Figure 8. Flow Cytometry analysis of HepG2 cells using anti-ACSL4/FACL4 antibody (M04372).

Overlay histogram showing HepG2 cells stained with M04372 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-ACSL4/FACL4 Antibody (M04372) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.