

Liver Carboxylesterase 1 Rabbit mAb

Catalog # AP79041

Product Information

Application	WB, FC, IP
Primary Accession	P23141
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Immunogen	A synthesized peptide derived from human Liver Carboxylesterase 1
Purification	Affinity Chromatography
Calculated MW	62521

Additional Information

Gene ID	1066
Other Names	CES1
Dilution	WB~~1/500-1/1000 FC~~1:10~50 IP~~1/20
Format	Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	CES1 (HGNC:1863)
Synonyms	CES2, SES1
Function	Involved in the detoxification of xenobiotics and in the activation of ester and amide prodrugs (PubMed: 18762277 , PubMed: 7980644 , PubMed: 9169443 , PubMed: 9490062). Hydrolyzes aromatic and aliphatic esters, but has no catalytic activity toward amides or a fatty acyl-CoA ester (PubMed: 18762277 , PubMed: 7980644 , PubMed: 9169443 , PubMed: 9490062). Hydrolyzes the methyl ester group of cocaine to form benzoylecgonine (PubMed: 7980644). Catalyzes the transesterification of cocaine to form cocaethylene (PubMed: 7980644). Displays fatty acid ethyl ester synthase activity, catalyzing the ethyl esterification of oleic acid to ethyloleate (PubMed: 7980644). Converts monoacylglycerides to free fatty acids and glycerol. Hydrolyzes of 2-arachidonoylglycerol and prostaglandins (PubMed: 21049984). Hydrolyzes cellular cholesteryl esters to free cholesterol and promotes reverse

cholesterol transport (RCT) by facilitating both the initial and final steps in the process (PubMed:[11015575](#), PubMed:[16024911](#), PubMed:[16971496](#), PubMed:[18762277](#)). First of all, allows free cholesterol efflux from macrophages to extracellular cholesterol acceptors and secondly, releases free cholesterol from lipoprotein-delivered cholesteryl esters in the liver for bile acid synthesis or direct secretion into the bile (PubMed:[16971496](#), PubMed:[18599737](#), PubMed:[18762277](#)).

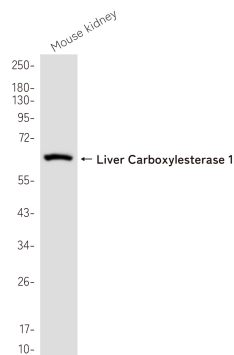
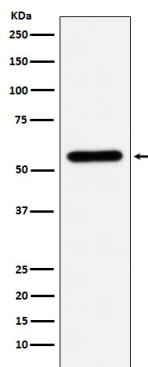
Cellular Location

Endoplasmic reticulum lumen. Cytoplasm Lipid droplet. Note=Moves from cytoplasm to lipid droplets upon lipid loading. Associates with lipid droplets independently of triglycerides (TG) content of the droplets and hydrolyzes cholesteryl esters more efficiently from mixed droplets

Tissue Location

Expressed predominantly in liver with lower levels in heart and lung (PubMed:[10562416](#)). Expressed in macrophages (PubMed:[11015575](#), PubMed:[18762277](#), PubMed:[21049984](#))

Images



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