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Liver Carboxylesterase 1 Antibody

Rabbit mAb
Catalog # AP91673

Product Information

Application	WB, FC, IP
Primary Accession	P23141
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	ACAT; CE 1; CEH; CES1; CES2; CESDD1; Egasyn; ES-HTEL; ES-x; Es22; Esterase 22; hCE 1; HMSE; HMSE1; REH; SES1; TGH; Triacylglycerol hydrolase;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	62521

Additional Information

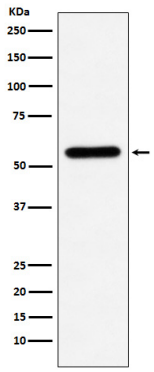
Dilution	WB 1:1000~1:5000 IP 1:40 FC 1:100
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Liver Carboxylesterase 1
Description	Involved in the detoxification of xenobiotics and in the activation of ester and amide prodrugs. Hydrolyzes aromatic and aliphatic esters, but has no catalytic activity toward amides or a fatty acyl-CoA ester. Hydrolyzes the methyl ester group of cocaine to form benzoylecgonine.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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 cholesterols 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



Western blot analysis of Liver Carboxylesterase 1 expression in U937 cell lysate.