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Recombinant Anti-CES1 Rabbit mAb

Catalog # AP95147

Product Information

Application	WB, FC, IP
Primary Accession	P23141
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Monoclonal
Calculated MW	62521

Additional Information

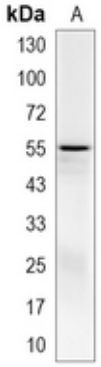
Gene ID	1066
Other Names	CES2; SES1; Liver carboxylesterase 1; Acyl-coenzyme A:cholesterol acyltransferase; ACAT; Brain carboxylesterase hBr1; Carboxylesterase 1; CE-1; hCE-1; Cocaine carboxylesterase; Egasyn; HMSE; Methylumbelliferyl-acetate deacetylase 1; Monocyte/macrophage serine esterase; Retinyl ester hydrolase; REH; Serine esterase 1; Triacylglycerol hydrolase; TGH
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within human CES1 protein. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) FC~~1:10~50 IP~~N/A
Format	Liquid in PBS, pH 7.3, 50% glycerol, 0.05% BSA, and 0.05% Proclin300.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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 CES1 expression in U937 (A) whole cell lysates. (Predicted band size: 63 kD; Observed band size: 55 kD)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.