

Anti-Liver Carboxylesterase 1 Monoclonal Antibody Catalog # ABO14619

Specification

Anti-Liver Carboxylesterase 1 Monoclonal Antibody - Product Information

Application	WB, IP, FC
Primary Accession	P23141
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid

Description

Anti-Liver Carboxylesterase 1 Monoclonal Antibody . Tested in WB, IP, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

Anti-Liver Carboxylesterase 1 Monoclonal Antibody - Additional Information

Gene ID 1066

Other Names

Liver carboxylesterase 1, Acyl-coenzyme A:cholesterol acyltransferase, ACAT, Brain carboxylesterase hBr1, Carboxylesterase 1, CE-1, hCE-1, 3.1.1.1, Cholesteryl ester hydrolase, CEH, 3.1.1.13, Cocaine carboxylesterase, Egasyn, HMSE, Methylumbelliferyl-acetate deacetylase 1, 3.1.1.56, Monocyte/macrophage serine esterase, Retinyl ester hydrolase, REH, Serine esterase 1, Triacylglycerol hydrolase, TGH, CES1 (http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=1863 target="_blank">HGNC:1863), CES2, SES1

Application Details

WB 1:1000-1:5000
IP 1:40
FC 1:100

Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen

A synthesized peptide derived from human Liver Carboxylesterase 1 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.

Purification

Affinity-chromatography

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Anti-Liver Carboxylesterase 1 Monoclonal Antibody - 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](http://www.uniprot.org/citations/18762277)), PubMed:[7980644](http://www.uniprot.org/citations/7980644), PubMed:[9169443](http://www.uniprot.org/citations/9169443), PubMed:[9490062](http://www.uniprot.org/citations/9490062)). Hydrolyzes aromatic and aliphatic esters, but has no catalytic activity toward amides or a fatty acyl-CoA ester (PubMed:[18762277](http://www.uniprot.org/citations/18762277), PubMed:[7980644](http://www.uniprot.org/citations/7980644), PubMed:[9169443](http://www.uniprot.org/citations/9169443), PubMed:[9490062](http://www.uniprot.org/citations/9490062)). Hydrolyzes the methyl ester group of cocaine to form benzoylecgonine (PubMed:[7980644](http://www.uniprot.org/citations/7980644)). Catalyzes the transesterification of cocaine to form cocaethylene (PubMed:[7980644](http://www.uniprot.org/citations/7980644)). Displays fatty acid ethyl ester synthase activity, catalyzing the ethyl esterification of oleic acid to ethyloleate (PubMed:[7980644](http://www.uniprot.org/citations/7980644)). Converts monoacylglycerides to free fatty acids and glycerol. Hydrolyzes of 2-arachidonoylglycerol and prostaglandins (PubMed:[21049984](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/11015575), PubMed:[16024911](http://www.uniprot.org/citations/16024911), PubMed:[16971496](http://www.uniprot.org/citations/16971496), PubMed:[18762277](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/16971496), PubMed:[18599737](http://www.uniprot.org/citations/18599737), PubMed:[18762277](http://www.uniprot.org/citations/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)

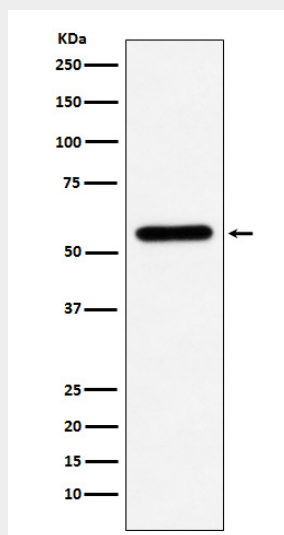
Anti-Liver Carboxylesterase 1 Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Liver Carboxylesterase 1 Monoclonal Antibody - Images



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