

CES1/Liver Carboxylesterase 1 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP57027

Specification

CES1/Liver Carboxylesterase 1 Polyclonal Antibody - Product Information

Application	IHC-P, WB
Primary Accession	P23141
Reactivity	Rat, Pig, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	62521

CES1/Liver Carboxylesterase 1 Polyclonal 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

Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

CES1/Liver Carboxylesterase 1 Polyclonal 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:<http://www.uniprot.org/citations/18762277> target="_blank">18762277, PubMed:<http://www.uniprot.org/citations/7980644> target="_blank">7980644, PubMed:<http://www.uniprot.org/citations/9169443> target="_blank">9169443, PubMed:<http://www.uniprot.org/citations/9490062> target="_blank">9490062). Hydrolyzes aromatic and aliphatic esters, but has no catalytic activity toward amides or a fatty acyl-CoA ester (PubMed:<http://www.uniprot.org/citations/18762277> target="_blank">18762277, PubMed:<http://www.uniprot.org/citations/7980644> target="_blank">7980644).

target="_blank">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)

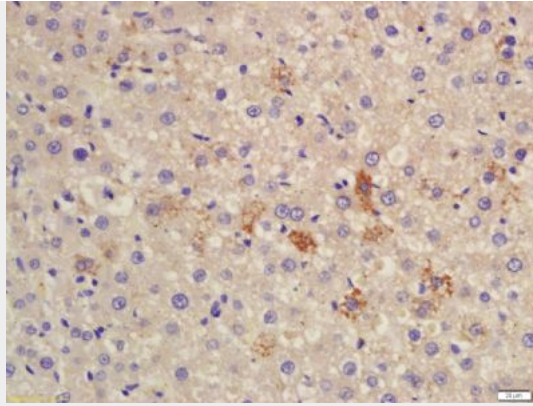
CES1/Liver Carboxylesterase 1 Polyclonal Antibody - Protocols

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](#)

CES1/Liver Carboxylesterase 1 Polyclonal Antibody - Images

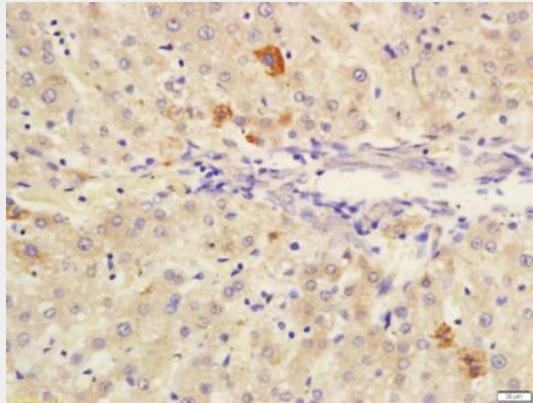




Tissue/cell: rat liver tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

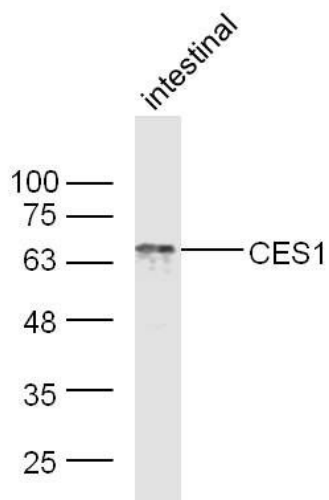
Incubation: Anti-CES1 Polyclonal Antibody, Unconjugated(bs-18301R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



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Protein: intestinal(mouse) lysate at 40ug;

Primary: rabbit Anti-CES1/Liver Carboxylesterase 1 (bs-18301R) at 1:300;

Secondary: HRP conjugated Goat-Anti-rabbit IgG(bs-0295G-HRP) at 1: 5000;

Predicted band size: 61 kD

Observed band size: 66 kD