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Carboxylesterase 1 / CES1 Antibody (Internal)

Goat Polyclonal Antibody
Catalog # ALS12250

Specification

Carboxylesterase 1 / CES1 Antibody (Internal) - Product Information

Application	**WB, IHC**
Primary Accession	P23141
Reactivity	**Human**
Host	**Goat**
Clonality	**Polyclonal**
Calculated MW	**63kDa KDa**

Carboxylesterase 1 / CES1 Antibody (Internal) - 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, 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, CES2, SES1

Target/Specificity
Human CES1. This antibody is expected to recognise all three reported isoforms (NP_001020366.1; NP_001020365.1; NP_001257.4).

Reconstitution & Storage
Store at -20°C. Minimize freezing and thawing.

Precautions
Carboxylesterase 1 / CES1 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

Carboxylesterase 1 / CES1 Antibody (Internal) - 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:7980644, PubMed:9169443, PubMed:9490062, PubMed:18762277). Hydrolyzes aromatic and aliphatic esters, but has no catalytic activity toward amides or a fatty

acyl-CoA ester (PubMed:7980644, PubMed:9169443, PubMed:9490062, PubMed:18762277). 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:18762277, PubMed:16024911, PubMed:11015575, PubMed:16971496). 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:18762277, PubMed:18599737, PubMed:16971496).

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:21049984, PubMed:18762277)

Carboxylesterase 1 / CES1 Antibody (Internal) - Protocols

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

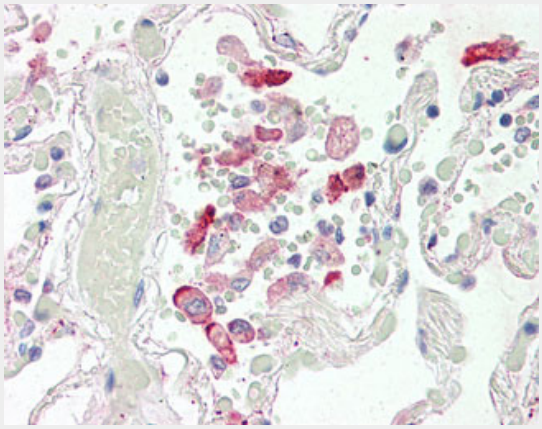
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Carboxylesterase 1 / CES1 Antibody (Internal) - Images

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Antibody (0.03 ug/ml) staining of Human Liver lysate (35 ug protein in RIPA buffer).



Anti-CES1 antibody IHC of human lung.

Carboxylesterase 1 / CES1 Antibody (Internal) - Background

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. Catalyzes the transesterification of cocaine to form cocaethylene. Displays fatty acid ethyl ester synthase activity, catalyzing the ethyl esterification of oleic acid to ethyloleate.

Carboxylesterase 1 / CES1 Antibody (Internal) - References

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