

Anti-Human Liver Carboxylesterase-1 (RABBIT) Antibody - 100-401-B14S

Code: 100-401-B14S

Size: 25 µL

Product Description: Anti-Human Liver Carboxylesterase-1 (RABBIT) Antibody - 100-401-B14S

Concentration: 90 mg/mL by Refractometry

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Rabbit
Gene Name	CES1
Species Reactivity	human
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer	None
Preservative	0.01% (w/v) Sodium Azide
Storage Condition	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Synonyms	rabbit anti-Liver Carboxylesterase-1 Antibody, Liver carboxylesterase 1, Acyl coenzyme A:cholesterol acyltransferase, ACAT, Monocyte/macrophage serine esterase, HMSE, Serine esterase 1, Brain carboxylesterase hBr1, Triacylglycerol hydrolase, Egasyn, Retinyl ester hydrolase, REH
Application Note	This antibody has been tested for use in ELISA and western blotting and is specific for human CE1 (carboxylesterase). Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 66 kDa in size corresponding CE1 by western blotting in the appropriate cell lysate or extract. In western blot analysis endogenous protein present in human tissue or fluids, multiple bands of CE may appear corresponding to variable amount of glycosylation on the molecule.
Background	Carboxylesterases (CES) are ubiquitous enzymes responsible for the hydrolysis of endogenous substrates with ester, thioester, or amide bonds and of xenobiotics (effecting detoxification or drug metabolism). Drug half-life and bioavailability may be modulated by selective inhibition of these proteins. CES1 or hCE1 (also known as acyl coenzyme A:cholesterol acyltransferase, monocyte/macrophage serine esterase, HMSE, serine esterase 1, brain carboxylesterase, triacylglycerol hydrolase, egasyn and retinyl ester hydrolase) is responsible for hydrolysis of stored cholesterol esters in macrophage foam cells and release of free cholesterol for high density lipoprotein-mediated cholesterol efflux.
Purity And Specificity	This product was prepared from monospecific antiserum by delipidation and defibrination. The antibody detects recombinant hCE1 in cell lysates and native Liver Carboxylesterase-1 present in human tissue or fluids in various assays (ie. IL-1 stimulated hCE1 production from fibroblasts).
Assay Dilutions	User Optimized
ELISA	1:5,000 - 1:20,000
Western Blot	1:2,500 – 1:5,000
Other Assays	User Optimized
Expiration	Expiration date is three (3) months from date of opening.
Immunogen	This whole rabbit serum was prepared by repeated immunizations with recombinant human Liver Carboxylesterase-1.
General Reference	Bushman F. (2003) Targeting Survival Integration Site Selection by Retroviruses and LTR-Retrotransposons. Cell 115: 135-138. Danks MK, Morton CL, Krull EJ, Cheshire PJ, Richmond LB, Naeve CW, Pawlik CA, Houghton PJ, and Potter PM. Comparison of Activation of CPT-11 by Rabbit and Human Carboxylesterases for Use in Enzyme/Prodrug Therapy Clin. Cancer Res., 5:917-924, 1999. Bencharit S, Morton CL, Xue Y, Potter PM, Redinbo MR. (2003) Structural basis of heroin and cocaine metabolism by a promiscuous human drug-processing enzyme. Nat Struct Biol 10:349-356
Related Products	
	100-4145 Anti-ALPHA AMYLASE (Bacillus amyloliquefaciens) (RABBIT) Antibody - 100-4145

610-4302	Anti-MOUSE IgG (H&L) (RABBIT) Antibody Peroxidase Conjugated - 610-4302
611-1302	Anti-RABBIT IgG (H&L) (GOAT) Antibody Peroxidase Conjugated - 611-1302
B304	NORMAL GOAT SERUM (NGS) - B304

Related Links

UniProtKB - P23141

<http://www.uniprot.org/uniprot/P23141>

NCBI - 68508965 <http://www.ncbi.nlm.nih.gov/protein/68508965>

GeneID - 1066

Images

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Western blot using Rockland's anti-hCE1 antibody shows detection of hCE1 (arrowhead) transfected into U373 MG (glioblastoma) whole cell lysate (lane 2) as a 66 kDa band. Purified hCE1 (lane 4) is similarly detected. The higher molecular weight band in lane 4 may represent a trimeric form of hCE1. No reactivity is seen in the untransfected control (lane 1). No cross reactivity occurs against the human intestinal form of CES1 (lane 3). The primary antibody was used at a 1:2,500 to detect purified hCE1. Personal communication, Philip Potter and Jason Hatfield, St. Jude Children's Research Hospital, Memphis, TN.



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