

Product datasheet

Anti-Liver Carboxylesterase 1/CES1 antibody ab45957

9 References 3 Images

Overview

Product name	Anti-Liver Carboxylesterase 1/CES1 antibody
Description	Rabbit polyclonal to Liver Carboxylesterase 1/CES1
Host species	Rabbit
Tested applications	Suitable for: IHC-P, WB, ICC/IF
Species reactivity	Reacts with: Rat, Human Predicted to work with: Mouse, Baboon, Rhesus monkey 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.40</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituent: PBS</p> <p>Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.</p>
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab45957 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use a concentration of 1 µg/ml.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 63 kDa (predicted molecular weight: 63 kDa).
ICC/IF		Use a concentration of 1 µg/ml.

Target

Function

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.

Tissue specificity

Expressed predominantly in liver with lower levels in heart and lung.

Sequence similarities

Belongs to the type-B carboxylesterase/lipase family.

Post-translational modifications

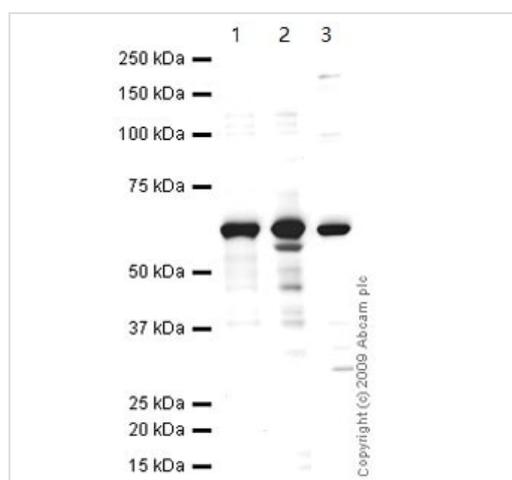
Contains sialic acid.

Cleavage of the signal sequence can occur at 2 positions, either between Trp-17 and Gly-18 or between Gly-18 and His-19.

Cellular localization

Endoplasmic reticulum lumen.

Images



Western blot - Anti-Liver Carboxylesterase 1/CES1 antibody (ab45957)

All lanes : Anti-Liver Carboxylesterase 1/CES1 antibody (ab45957) at 1 µg/ml

Lane 1 : HepG2 (Human hepatocellular liver carcinoma cell line) Whole cell lysate

Lane 2 : THP-1 whole cell lysate ([ab7913](#))

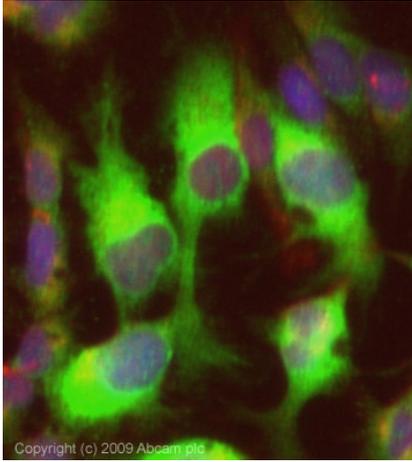
Lane 3 : Liver (Rat) Tissue Lysate - normal tissue

Lysates/proteins at 10 µg per lane.

Secondary

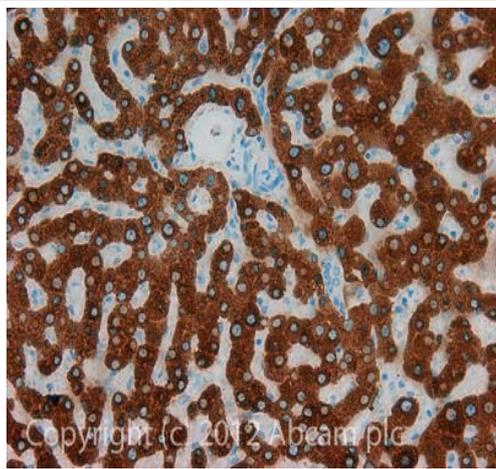
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Predicted band size: 63 kDa



ICC/IF image of ab45957 stained HepG2 cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal Goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab45957, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 Goat anti-Rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue). This antibody also gave a positive result in 100% Methanol fixed (5 min) HepG2 cells at 1µg/ml.

Immunocytochemistry/ Immunofluorescence - Anti-Liver Carboxylesterase 1/CES1 antibody (ab45957)



IHC image of Carboxylesterase 1 staining in Human normal liver formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab45957, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Liver Carboxylesterase 1/CES1 antibody (ab45957)

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