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Product datasheet

Anti-CYP2C9 antibody ab4236

★★★★★ 2 Abreviews 10 References 1 Image

Overview

Product name	Anti-CYP2C9 antibody
Description	Rabbit polyclonal to CYP2C9
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, WB
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Recombinant full length protein corresponding to Human CYP2C9.
General notes	The Cytochrome P450 (P450) superfamily of enzymes is one of three enzyme systems which metabolize the fatty acid arachadonic acid (AA) to regulators of vascular tone. P450 enzymes are monooxygenase enzymes which require several co-factors such as nicotinamide adenine dinucleotide phosphate (NADPH) and P450 reductase. There are over 200 known genes which encode P450s. Epoxygenases are those P450s which metabolize AA to epoxyeicosatrienoic acid (EETs) and omega-hydroxylases are those P450s which produce 19- and 20-hydroxyeicosatetraenoic acids (19- and 20-HETE). As well as fatty acid metabolism, P450s also metabolize many drugs and toxins. Cytochrome P450 3A4 is abundantly expressed in liver and small intestine and is inducible by barbiturates, glucocorticoids and rifampicin. 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. 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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 8.00 Constituent: 0.0536% PBS
Purity	Ammonium Sulphate Precipitation

Primary antibody notes	The Cytochrome P450 (P450) superfamily of enzymes is one of three enzyme systems which metabolize the fatty acid arachadonic acid (AA) to regulators of vascular tone. P450 enzymes are monooxygenase enzymes which require several co-factors such as nicotinamide adenine dinucleotide phosphate (NADPH) and P450 reductase. There are over 200 known genes which encode P450s. Epoxygenases are those P450s which metabolize AA to epoxyeicosatrienoic acid (EETs) and omega-hydroxylases are those P450s which produce 19- and 20-hydroxyeicosatetraenoic acids (19- and 20-HETE). As well as fatty acid metabolism, P450s also metabolize many drugs and toxins. Cytochrome P450 3A4 is abundantly expressed in liver and small intestine and is inducible by barbiturates, glucocorticoids and rifampicin.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab4236 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. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB	★★★★★ **(2)**	Use at an assay dependent concentration. Predicted molecular weight: 56 kDa. Positive control 0.1 Âµg of recombinant human cytochrome P450 2.

Target

Function	Cytochromes P450 are a group of heme-thiolate monooxygenases. In liver microsomes, this enzyme is involved in an NADPH-dependent electron transport pathway. It oxidizes a variety of structurally unrelated compounds, including steroids, fatty acids, and xenobiotics. This enzyme contributes to the wide pharmacokinetics variability of the metabolism of drugs such as S-warfarin, diclofenac, phenytoin, tolbutamide and losartan.
Sequence similarities	Belongs to the cytochrome P450 family.
Cellular localization	Endoplasmic reticulum membrane. Microsome membrane.

Images

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CYP2C9 antibody (ab4236)

IHC image of ab4236 staining in human 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 ab4236, 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.

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