



# Anti-Cytochrome P450 4A/CYP4A11 antibody ab3573

[15 References](#) [7 Images](#)

## Overview

<b>Product name</b>	Anti-Cytochrome P450 4A/CYP4A11 antibody
<b>Description</b>	Rabbit polyclonal to Cytochrome P450 4A/CYP4A11
<b>Host species</b>	Rabbit
<b>Specificity</b>	The immunogen is homologous to rat cytochrome P450 4A2, 4A10, 4A12 and 4A14. Gene synonyms are Cyp4a11, Cyp4a1, Cyp4a8, and Cyp4a3, respectively. The specificity to these specific forms has not been confirmed experimentally. Please note nomenclature for specific forms may differ from mouse to rat.
<b>Tested applications</b>	<b>Suitable for:</b> IHC-Fr, ICC/IF, IHC-P, WB, IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Rabbit, Hamster, Cat, Dog, Human, Pig
<b>Immunogen</b>	Synthetic peptide corresponding to Rat Cytochrome P450 4A/CYP4A11 aa 400-500. The immunogen is homologous to rat cytochrome P450 4A2, A10, A12 and A14. Database link: <a href="#">P08516</a>
	 <a href="#">Run BLAST with</a>  <a href="#">Run BLAST with</a>
<b>Positive control</b>	WB: Rat liver tissue lysate, H-4-II-E and HeLa cell lysate
<b>General notes</b>	<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&amp;As</p>

## Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	Preservative: 0.05% Sodium azide Constituent: 99% PBS
<b>Purity</b>	Whole antiserum
<b>Primary antibody notes</b>	The Cytochrome P450 (P450) family 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 NADPH and P450 reductase. There are over 200 cDNA's which encode P450 protein. Epoxygenases are those P450 proteins which metabolize AA to epoxygenic acids (EETs) and w-hydroxylases are those P450 proteins which produce 19- and 20-hydroxyeicosatetraenoic acids (19- and 20-HETE). 20-HETE is converted from AA by the 4A family of P450 proteins which includes at least 8 different, though closely related isoforms. 4A1, 4A2, & 4A3 have been cloned from liver, kidney and testis and have been detected in renal, hepatic & brain microvessels.

<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab3573 in the following tested applications.

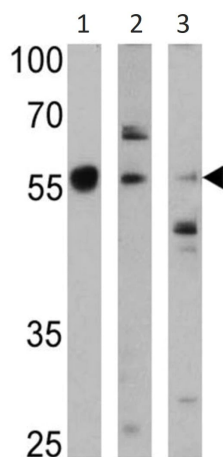
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-Fr		Use at an assay dependent concentration.
ICC/IF		1/20 - 1/200.
IHC-P		1/100 - 1/500.
WB		1/200 - 1/2000. Predicted molecular weight: 59 kDa.
IP		Use at an assay dependent concentration.

## Target

<b>Function</b>	Catalyzes the omega- and (omega-1)-hydroxylation of various fatty acids such as laurate, myristate and palmitate. Has little activity toward prostaglandins A1 and E1. Oxidizes arachidonic acid to 20-hydroxyeicosatetraenoic acid (20-HETE).
<b>Tissue specificity</b>	Kidney and liver.
<b>Sequence similarities</b>	Belongs to the cytochrome P450 family.
<b>Cellular localization</b>	Endoplasmic reticulum membrane. Microsome membrane.

## Images



Western blot - Anti-Cytochrome P450 4A/CYP4A11 antibody (ab3573)

**All lanes :** Anti-Cytochrome P450 4A/CYP4A11 antibody (ab3573) at 1/1000 dilution

**Lane 1 :** Rat liver tissue lysate

**Lane 2 :** H-4-II-E cell lysate

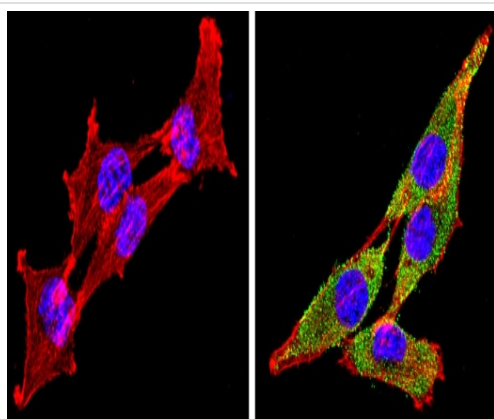
**Lane 3 :** HeLa cell lysate

Lysates/proteins at 25 µg per lane.

**Predicted band size:** 59 kDa

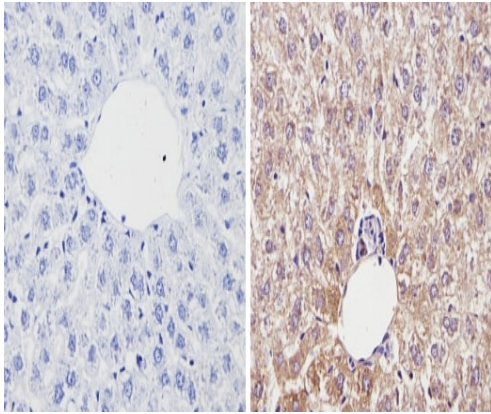
**Observed band size:** 58 kDa

Chemiluminescent detection



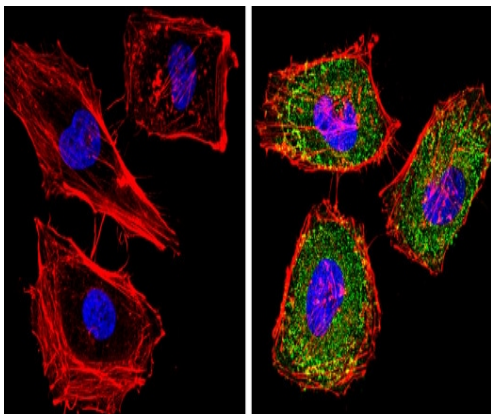
Immunocytochemistry/ Immunofluorescence - Anti-Cytochrome P450 4A/CYP4A11 antibody (ab3573)

ab3573 labelling Cytochrome P450 4A/CYP4A11 (green) in the cytoplasm and membrane of H-4-II-E (rat) cells (right), compared to control (left), by Immunocytochemistry/Immunofluorescence. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were incubated with the primary antibody (1:100 in 3% BSA-PBS) overnight at 4 °C. A DyLight-conjugated anti-rabbit was used as the secondary antibody. Red (phalloidin) - F-actin, Blue - nuclei. Images were taken at a magnification of 60x.



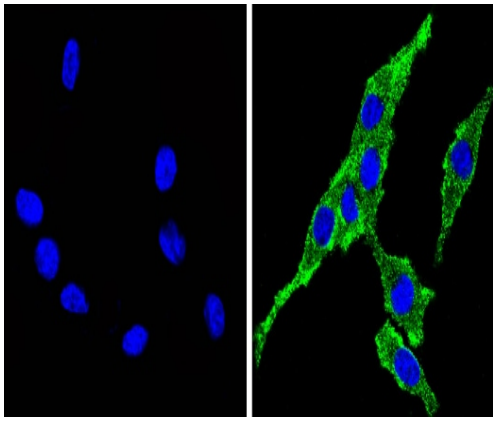
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytochrome P450 4A/CYP4A11 antibody (ab3573)

ab3573 labelling Cytochrome P450 4A/CYP4A11 in the cytoplasm of Rat liver tissue (right) compared with a negative control in the absence of primary antibody (left). To expose target proteins, antigen retrieval method was performed using 10mM sodium citrate (pH 6.0) microwaved for 8-15 min. Tissues were blocked in 3% H<sub>2</sub>O<sub>2</sub>-methanol for 15 min at room temperature. Tissue sections were incubated with the primary antibody (1:200 in 3% BSA-PBS) overnight at 4°C. A HRP-conjugated anti-rabbit was used as the secondary antibody, followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.



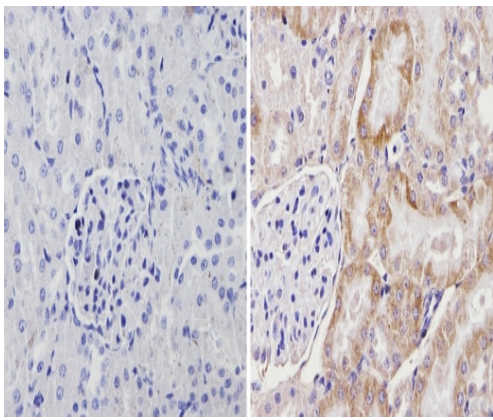
Immunocytochemistry/ Immunofluorescence - Anti-Cytochrome P450 4A/CYP4A11 antibody (ab3573)

ab3573 labelling Cytochrome P450 4A/CYP4A11 (green) in the cytoplasm and membrane of HeLa cells (right), compared to control (left), by Immunocytochemistry/Immunofluorescence. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were incubated with the primary antibody (1:100 in 3% BSA-PBS) overnight at 4 °C. A DyLight-conjugated anti-rabbit was used as the secondary antibody. Red (phalloidin) - F-actin, Blue - nuclei. Images were taken at a magnification of 60x.



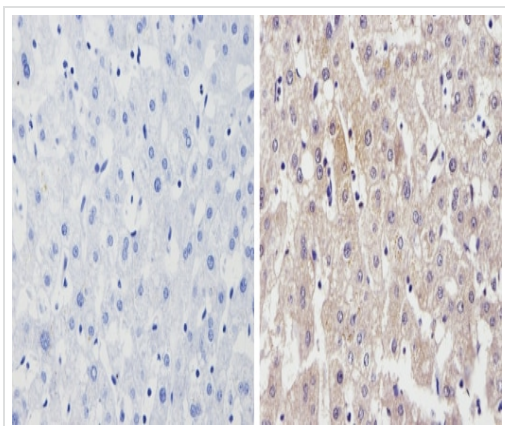
Immunocytochemistry/ Immunofluorescence - Anti-Cytochrome P450 4A/CYP4A11 antibody (ab3573)

ab3573 labelling Cytochrome P450 4A/CYP4A11 (green) in the cytoplasm and membrane of PC12 cells (right), compared to control (left), by Immunocytochemistry/Immunofluorescence. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were incubated with the primary antibody (1:100 in 3% BSA-PBS) overnight at 4 °C. A DyLight-conjugated anti-rabbit was used as the secondary antibody. Red (phalloidin) - F-actin, Blue - nuclei. Images were taken at a magnification of 60x.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytochrome P450 4A/CYP4A11 antibody (ab3573)

ab3573 labelling Cytochrome P450 4A/CYP4A11 in the cytoplasm of Rat kidney tissue (right) compared with a negative control in the absence of primary antibody (left). To expose target proteins, antigen retrieval method was performed using 10mM sodium citrate (pH 6.0) microwaved for 8-15 min. Tissues were blocked in 3% H<sub>2</sub>O<sub>2</sub>-methanol for 15 min at room temperature. Tissue sections were incubated with the primary antibody (1:200 in 3% BSA-PBS) overnight at 4°C. A HRP-conjugated anti-rabbit was used as the secondary antibody, followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytochrome P450 4A/CYP4A11 antibody (ab3573)

ab3573 labelling Cytochrome P450 4A/CYP4A11 in the cytoplasm and membrane of Human liver tissue (right) compared with a negative control in the absence of primary antibody (left). To expose target proteins, antigen retrieval method was performed using 10mM sodium citrate (pH 6.0) microwaved for 8-15 min. Tissues were blocked in 3% H<sub>2</sub>O<sub>2</sub>-methanol for 15 min at room temperature. Tissue sections were incubated with the primary antibody (1:200 in 3% BSA-PBS) overnight at 4°C. A HRP-conjugated anti-rabbit was used as the secondary antibody, followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.

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