

Product datasheet

Anti-Cytochrome P450 3A4/CYP3A4 antibody ab3572

18 References 5 Images

Overview

<b>Product name</b>	Anti-Cytochrome P450 3A4/CYP3A4 antibody
<b>Description</b>	Rabbit polyclonal to Cytochrome P450 3A4/CYP3A4
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Other Immunogen Type (His-tag) corresponding to Human Cytochrome P450 3A4/CYP3A4. Purified, His-tagged, full length human P450 3A4 fusion protein.
<b>Positive control</b>	Rat liver lysate.
<b>General notes</b>	This product was previously labelled as Cytochrome P450 3A4

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 Constituents: PBS, 0.1% BSA
<b>Purity</b>	Ammonium Sulphate Precipitation
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab3572** 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
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Application	Abreviews	Notes
WB		1/2000. Detects a band of approximately 52 kDa (predicted molecular weight: 57 kDa). A 46kDa band is detected in rat liver extracts.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

## 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 performs a variety of oxidation reactions (e.g. caffeine 8-oxidation, omeprazole sulphoxidation, midazolam 1'-hydroxylation and midazolam 4-hydroxylation) of structurally unrelated compounds, including steroids, fatty acids, and xenobiotics. The enzyme also hydroxylates etoposide.

### Tissue specificity

Expressed in prostate and liver. According to some authors, it is not expressed in brain (PubMed:19094056). According to others, weak levels of expression are measured in some brain locations (PubMed:19359404 and PubMed:18545703). Also expressed in epithelium of the small intestine and large intestine, bile duct, nasal mucosa, kidney, adrenal cortex, epithelium of the gastric mucosa with intestinal metaplasia, gallbladder, intercalated ducts of the pancreas, chief cells of the parathyroid and the corpus luteum of the ovary (at protein level).

### Sequence similarities

Belongs to the cytochrome P450 family.

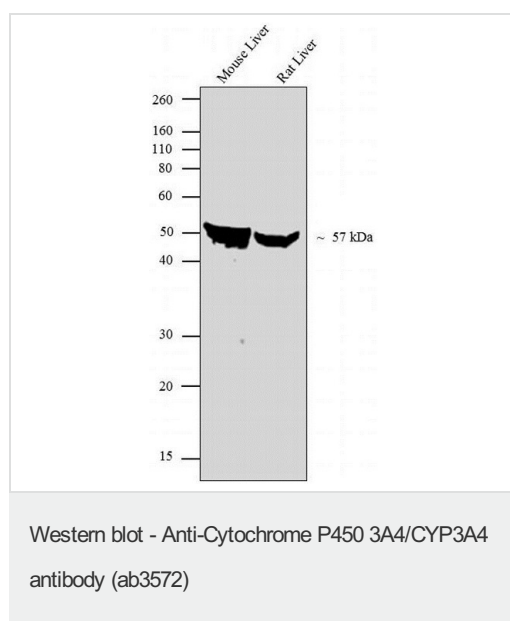
### Post-translational modifications

Polyubiquitinated in the presence of AMFR and UBE2G1 and also STUB1/CHIP and UBE2D1 (in vitro).

### Cellular localization

Endoplasmic reticulum membrane. Microsome membrane.

## Images



**All lanes** : Anti-Cytochrome P450 3A4/CYP3A4 antibody (ab3572) at 1/2000 dilution

**Lane 1** : Mouse liver with Skimmed milk

**Lane 2** : Rat liver with Skimmed milk

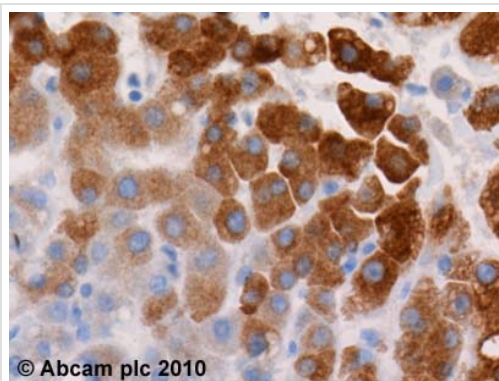
Lysates/proteins at 30 µg per lane.

Blocking peptides at 5 % per lane.

### Secondary

**All lanes** : HRP conjugated Goat anti-Rabbit IgG (H+L) at 1/5000 dilution

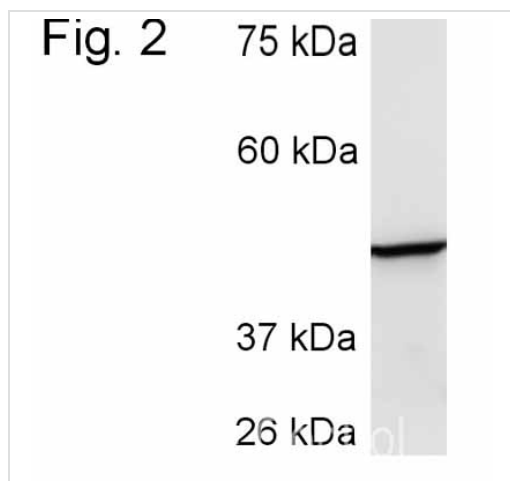
**Predicted band size:** 57 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytochrome P450 3A4/CYP3A4 antibody (ab3572)

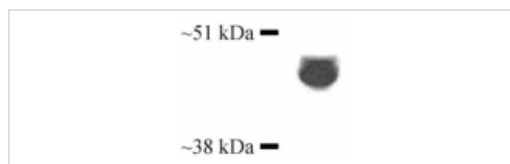
ab3572 (1µg/ml) staining Cytochrome P450 3A4/CYP3A4 in human Liver using an automated system (DAKO Autostainer Plus). Using this protocol there is strong staining of cytoplasm of the plates of hepatic cells .

Sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffers citrate pH 6.0 in a DAKO PT link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that, for manual staining, optimization of primary antibody concentration and incubation time is recommended. Signal amplification may be required.



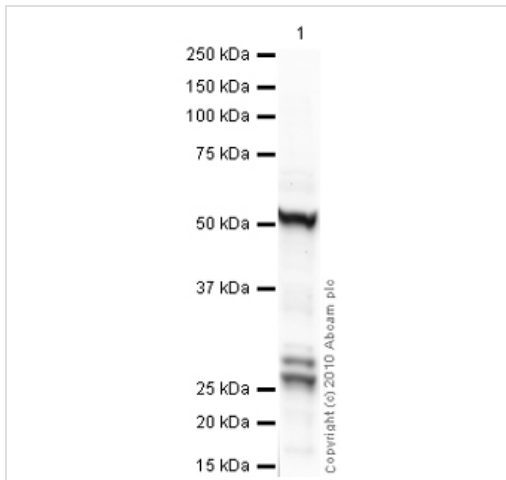
Western blot - Anti-Cytochrome P450 3A4/CYP3A4 antibody (ab3572)

Western blot of Cytochrome P450 3A4/CYP3A4 on rat liver extract using ab3572.



Western blot - Anti-Cytochrome P450 3A4/CYP3A4 antibody (ab3572)

ab3572 at a dilution of 1/2000 staining Cytochrome P450 3A4/CYP3A4 in rat liver extract by Western blot.



Western blot - Anti-Cytochrome P450 3A4/CYP3A4 antibody (ab3572)

Anti-Cytochrome P450 3A4/CYP3A4 antibody (ab3572) at 1/500 dilution + Human liver tissue lysate - total protein (ab29889) at 10 µg

**Secondary**

Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 57 kDa

**Observed band size:** 52 kDa

[why is the actual band size different from the predicted?](#)

**Additional bands at:** 26 kDa, 29 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 90 seconds

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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