abcam

Product datasheet

Anti-Cytochrome P450 1A2 antibody [d15 (16VII F10F12)] ab22717

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概述

产品名称	Anti-Cytochrome P450 1A2抗体[d15 (16VⅡ F10F12)]
描述	小鼠单克隆抗体[d15 (16VⅡ F10F12)] to Cytochrome P450 1A2
宿主	Mouse
特异性	This antibody cross reacts with CYP 1A1. This antibody does not react with rat CYP 2A1, 2B1, 2B2, 2C6, 2C7, 2C11, 4A1, 4A2 and 4A3.
经测试应用	**适用于:** Flow Cyt, IHC-P, ICC/IF, WB
种属反应性	**与反应:** Mouse, Rat, Human
免疫原	Full length protein corresponding to Rat Cytochrome P450 1A2.
常规说明	**Isotype** IgG1/IgG2a kappa 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

性能

形式	Liquid
存放说明	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.
存储溶液	Preservative: 0.02% Sodium azide Constituent: 99.98% PBS
纯度	Protein A/G purified
克隆	单克隆
克隆编号	d15 (16VⅡ F10F12)
同种型	IgG1

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab22717于以下的经测试应用**

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
Flow Cyt		Use 1µg for 10^6 cells. **ab170190** - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
IHC-P	★★★★☆ (5)	Use a concentration of 4 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		Use a concentration of 1 - 5 µg/ml.
WB	★★★★★ (1)	Use at an assay dependent concentration. Detects a band of approximately 58 kDa.

靶标

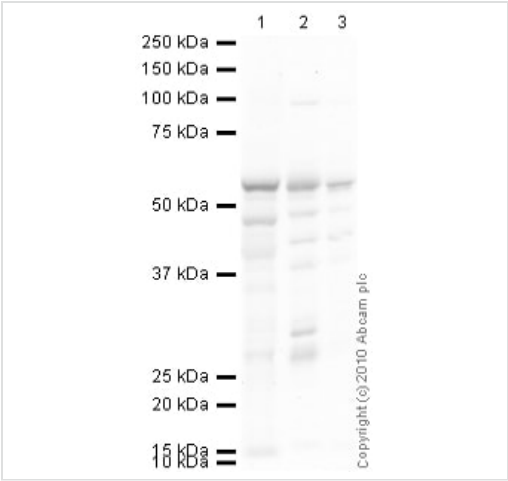
功能 Cytochromes P450 are a group of heme-thiolate monooxygenases. In liver microsomes, this enzyme is involved in an NADPH-dependent electron transport pathway. It oxidizes a variety of structurally unrelated compounds, including steroids, fatty acids, and xenobiotics. Most active in catalyzing 2-hydroxylation. Caffeine is metabolized primarily by cytochrome CYP1A2 in the liver through an initial N3-demethylation. Also acts in the metabolism of aflatoxin B1 and acetaminophen. Participates in the bioactivation of carcinogenic aromatic and heterocyclic amines. Catalizes the N-hydroxylation of heterocyclic amines and the O-deethylation of phenacetin.

组织特异性 Liver.

序列相似性 Belongs to the cytochrome P450 family.

细胞定位 Endoplasmic reticulum membrane. Microsome membrane.

图片



Western blot - Anti-Cytochrome P450 1A2 antibody [d15 (16VII F10F12)] (ab22717)

All lanes : Anti-Cytochrome P450 1A2 antibody [d15 (16VII F10F12)] (ab22717) at 1 µg/ml

Lane 1 : Human liver tissue lysate - total protein (**ab29889**)
Lane 2 : Liver (Mouse) Tissue Lysate
Lane 3 : Liver (Rat) Tissue Lysate

Lysates/proteins at 10 µg per lane.

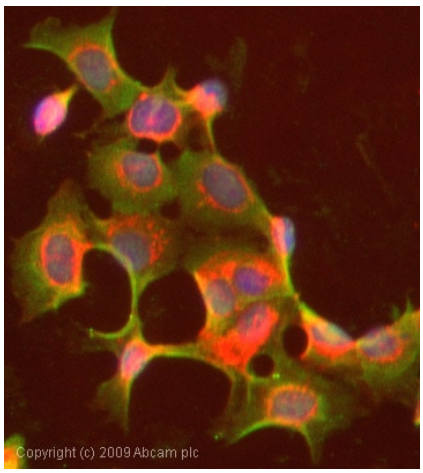
Secondary
All lanes : Goat Anti-Mouse IgG H&L (HRP) preadsorbed (**ab97040**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

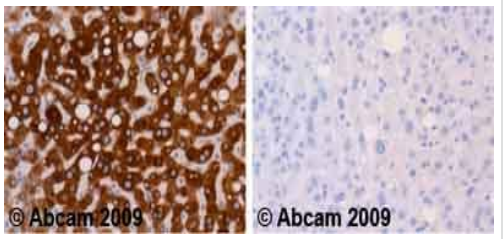
Observed band size: 58 kDa
Additional bands at: 30 kDa, 48 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 150 seconds



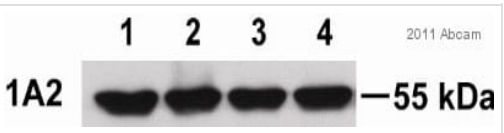
Immunocytochemistry/ Immunofluorescence - Anti-Cytochrome P450 1A2 antibody [d15 (16VII F10F12)] (ab22717)

ICC/IF image of ab22717 stained MCF7 cells. The cells were 100% methanol fixed (5 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 (ab22717, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse 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) at a concentration of 1.43µM.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytochrome P450 1A2 antibody [d15 (16VII F10F12)] (ab22717)

Ab22717 staining human normal liver. Staining is localised to the cytoplasm.
Left panel: with primary antibody at 1 ug/ml. Right panel: isotype control.
Sections were stained using an automated system DAKO Autostainer Plus , at room temperature. Sections were rehydrated and antigen retrieved with the Dako 3-in-1 antigen retrieval buffer citrate pH 6.0 in a DAKO PT Link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 minutes. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 minutes 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 we recommend to optimize the primary antibody concentration and incubation time (overnight incubation), and amplification may be required.



Western blot - Anti-Cytochrome P450 1A2 antibody [d15 (16VII F10F12)] (ab22717)
Image courtesy of an anonymous Abreview.

All lanes : Anti-Cytochrome P450 1A2 antibody [d15 (16VII F10F12)] (ab22717) at 1/2500 dilution

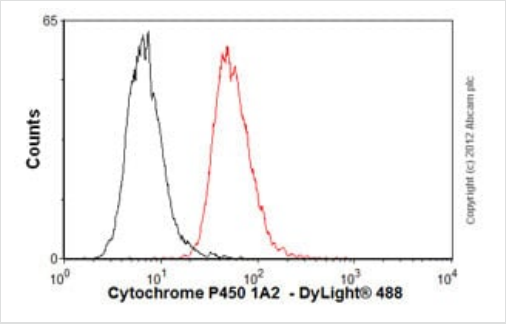
All lanes : Tissue lysate prepared from murine liver microsomes

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat anti-mouse IgG(H+L)-HRP conjugate at 1/5000 dilution

Developed using the ECL technique.

Exposure time: 1 second



Flow Cytometry - Anti-Cytochrome P450 1A2 antibody [d15 (16VII F10F12)] (ab22717)

Overlay histogram showing MCF7 cells stained with ab22717 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab22717, 1µg/1x10^6 cells) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (**ab91353**, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.

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