abcam

Product datasheet

Anti-Cytochrome P450 1A2 antibody [EPR6138(2)] ab151728

Recombinant RabMAb

4 References 7 Images

Overview

Product name	Anti-Cytochrome P450 1A2 antibody [EPR6138(2)]
Description	Rabbit monoclonal [EPR6138(2)] to Cytochrome P450 1A2
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, ICC/IF **Unsuitable for:** IHC-P or IP
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide within Human Cytochrome P450 1A2 aa 200-300. The exact sequence is proprietary.
Positive control	WB: Caco2, HepG2, HeLa and A549 cell lysates. ICC/IF: HeLa cells. Flow Cyt (intra): MCF7 cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20ºC.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EPR6138(2)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab151728 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
Flow Cyt (Intra)		1/100 - 1/10000. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		1/1000 - 1/10000. Predicted molecular weight: 58 kDa.
ICC/IF		1/200 - 1/500.

Application notes Is unsuitable for IHC-P or IP.

Target

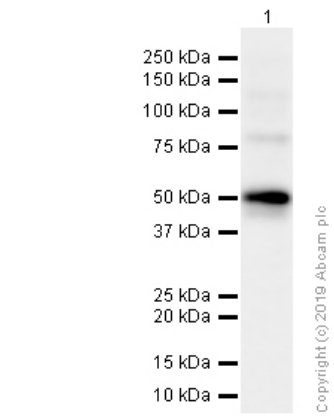
Function Cytochromes P450 are a group of heme-thiolate monooxygenases. In liver microsomes, this enzyme is involved in an NADPH-dependent electron transport pathway. It oxidizes a variety of structurally unrelated compounds, including steroids, fatty acids, and xenobiotics. Most active in catalyzing 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.

Tissue specificity Liver.

Sequence similarities Belongs to the cytochrome P450 family.

Cellular localization Endoplasmic reticulum membrane. Microsome membrane.

Images



Western blot - Anti-Cytochrome P450 1A2 antibody [EPR6138(2)] (ab151728)

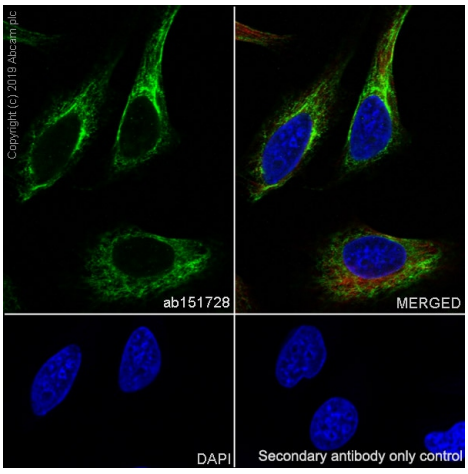
Anti-Cytochrome P450 1A2 antibody [EPR6138(2)] (ab151728) at 1/2000 dilution (Purified) + HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates at 15 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

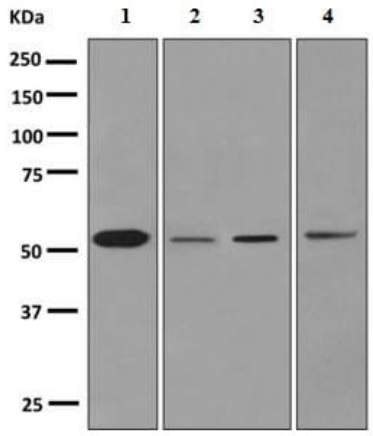
Predicted band size: 58 kDa

Observed band size: 58 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Cytochrome P450 1A2 antibody [EPR6138(2)] (ab151728)

Immunocytochemistry/ Immunofluorescence analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Cytochrome P450 1A2 with purified ab151728 at 1/200 dilution (9.4 µg/ml). Cells were fixed in 100% Methanol and permeabilized with None. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Western blot - Anti-Cytochrome P450 1A2 antibody [EPR6138(2)] (ab151728)

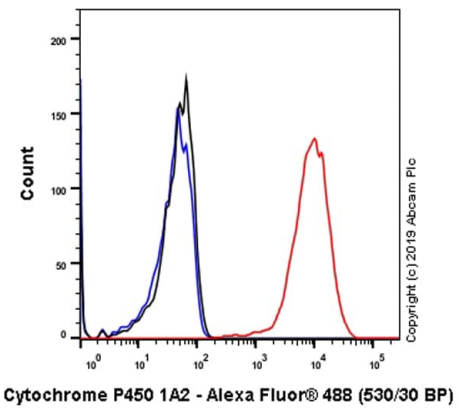
All lanes : Anti-Cytochrome P450 1A2 antibody [EPR6138(2)] (ab151728) at 1/1000 dilution ((unpurified))

Lane 1 : Caco2 cell lysate
Lane 2 : HepG2 cell lysate
Lane 3 : HeLa cell lysate
Lane 4 : A549 cell lysate

Lysates/proteins at 10 µg per lane.

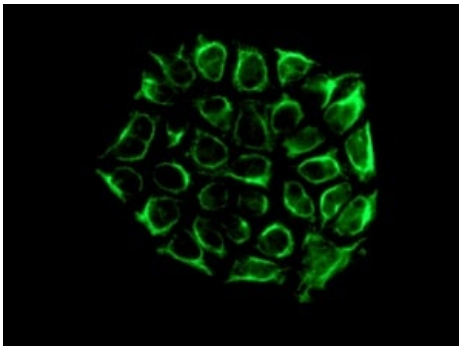
Secondary
All lanes : Goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 58 kDa



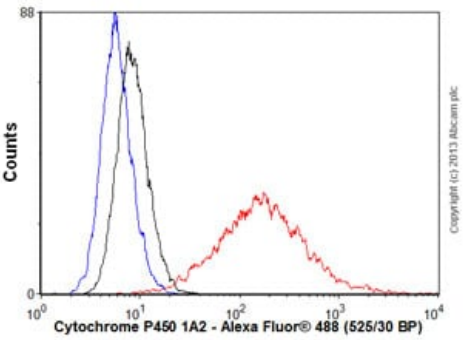
Flow Cytometry (Intracellular) - Anti-Cytochrome P450 1A2 antibody [EPR6138(2)] (ab151728)

Intracellular Flow Cytometry analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling Cytochrome P450 1A2 with purified ab151728 at 1/200 dilution (10 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



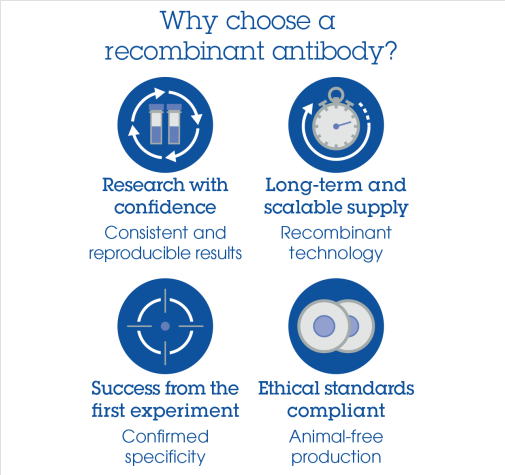
Immunocytochemistry/ Immunofluorescence - Anti-Cytochrome P450 1A2 antibody [EPR6138(2)] (ab151728)

Immunofluorescent analysis of HeLa cells labeling Cytochrome P450 1A2 with unpurified ab151728 at 1/250 dilution.



Flow Cytometry (Intracellular) - Anti-Cytochrome P450 1A2 antibody [EPR6138(2)] (ab151728)

Overlay histogram showing MCF7 cells stained with unpurified ab151728 (red line). The cells were fixed with 4% paraformaldehyde (10 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 (ab151728, 1/10000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H&L) (**ab150077**) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in MCF7 cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Anti-Cytochrome P450 1A2 antibody [EPR6138(2)]

(ab151728)

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