Datasheet for ABIN4950722

anti-CYP1A1 antibody (AA 183-320)

8 Images

Go to Product page

Overview

Quantity:	100 µg
Target:	CYP1A1
Binding Specificity:	AA 183-320
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CYP1A1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Flow Cytometry (FACS), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	Amino acids 183-320 of human CYP1A1 were used as the immunogen for the CYP1A1 antibody.
Isotype:	IgG
Purification:	Antigen affinity

Target Details

Target:	CYP1A1
Alternative Name:	CYP1A1 (CYP1A1 Products)
Background:	CYP1A1 is involved in phase I xenobiotic and drug metabolism (one substrate of it is theophylline). It is inhibited by fluoroquinolones and macrolides and induced by aromatic

Target Details

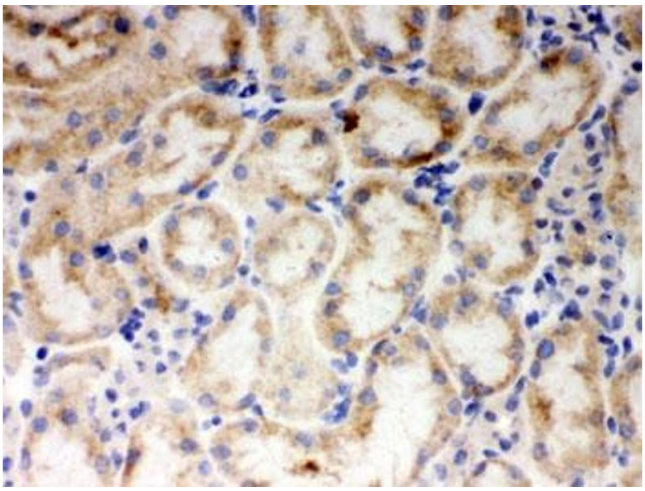
	hydrocarbons. CYP1A1 is also known as AHH (aryl hydrocarbon hydroxylase). It is involved in the metabolic activation of aromatic hydrocarbons (polycyclic aromatic hydrocarbons, PAH), for example, benzo(a)pyrene (BP), by transforming it to an epoxide. In this reaction, the oxidation of benzo[a]pyrene is catalysed by CYP1A1 to form BP-7,8-epoxide, which can be further oxidized by epoxide hydrolase (EH) to form BP-7,8-dihydrodiol. Finally CYP1A1 catalyses this intermediate to form BP-7,8-dihydrodiol-9,10-epoxide, which is the ultimate carcinogen. However, an in vivo experiment with gene-deficient mice has found that the hydroxylation of benzo(a)pyrene by CYP1A1 can have an overall protective effect on the DNA, rather than contributing to potentially carcinogenic DNA modifications. This effect is likely due to the fact that CYP1A1 is highly active in the intestinal mucosa, and thus inhibits infiltration of ingested benzo(a)pyrene carcinogen into the systemic circulation.
UniProt:	P04798
Pathways:	Steroid Hormone Biosynthesis, Regulation of Lipid Metabolism by PPARalpha

Application Details

Application Notes:	Optimal dilution of the CYP1A1 antibody should be determined by the researcher.\. Western blot: 0.1-0.5 µg/mL,IHC (Frozen): 0.5-1 µg/mL,IHC (Paraffin): 0.5-1 µg/mL,FACS: 1-3 µg/10^6 cells
Restrictions:	For Research Use only

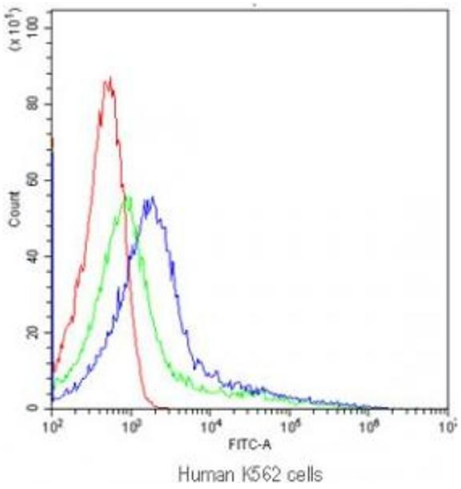
Handling

Buffer:	0.5 mg/mL if reconstituted with 0.2 mL sterile DI water
Storage:	-20 °C
Storage Comment:	After reconstitution, the CYP1A1 antibody can be stored for up to one month at 4°C. For long-term, aliquot and store at -20°C. Avoid repeated freezing and thawing.



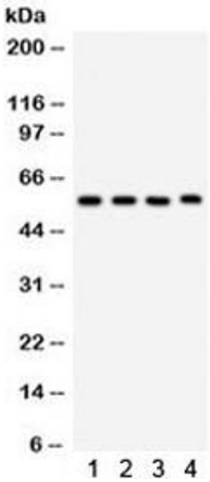
Immunohistochemistry

Image 1. IHC testing of frozen mouse kidney tissue with CYP1A1 antibody.



Flow Cytometry

Image 2. Flow cytometry testing of human K562 cells with CYP1A1 antibody at 1ug/10^6 cells (blocked with goat sera)



Western Blotting

Image 3. Western blot testing of 1) rat lung, 2) mouse lung, 3) human placenta, 4) Jurkat lysate with CYP1A1 antibody. Predicted/observed molecular weight ~58 kDa.

Please check the product details page for more images. Overall 8 images are available for ABIN4950722.