

Datasheet for ABIN3043819  
**anti-CYP1A1 antibody (AA 183-320)**

## 6 Images

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## Overview

Quantity:	100 µg
Target:	CYP1A1
Binding Specificity:	AA 183-320
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

## Product Details

Purpose:	Rabbit IgG polyclonal antibody for Cytochrome P450 1A1(CYP1A1) detection. Tested with WB, IHC-P, IHC-F in Human,Mouse,Rat.
Immunogen:	E.coli-derived human CYP1A1 recombinant protein (Position: H183-D320). Human CYP1A1 shares 81.2% amino acid (aa) sequence identity with both mouse and rat CYP1A1.
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for Cytochrome P450 1A1(CYP1A1) detection. Tested with WB, IHC-P, IHC-F in Human,Mouse,Rat.  Gene Name: cytochrome P450, family 1, subfamily A, polypeptide 1 Protein Name: Cytochrome P450 1A1
Purification:	Immunogen affinity purified.

## Target Details

Target:	CYP1A1
Alternative Name:	CYP1A1 ( <a href="#">CYP1A1 Products</a> )
Background:	<p>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 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.</p> <p>Synonyms: AHH antibody AHRR antibody Aryl hydrocarbon hydroxylase antibody CP 11 antibody CP11 antibody CP1A1_HUMAN antibody CYP 1 antibody CYP1 antibody CYP1A1 antibody CYPIA1 antibody  Cytochrome P1 450 dioxin inducible antibody Cytochrome P1-450 antibody Cytochrome P1-450 dioxin-inducible antibody Cytochrome P450 1A1 antibody Cytochrome P450 family 1 subfamily A polypeptide 1 antibody Cytochrome P450 form 6 antibody Cytochrome P450 subfamily I (aromatic compound inducible) polypeptide 1 antibody Cytochrome P450 subfamily I aromatic compound inducible polypeptide 1 antibody Cytochrome P450-C antibody Cytochrome P450-P1 antibody Flavoprotein-linked monooxygenase antibody Microsomal monooxygenase antibody P1 450 antibody P450 C antibody P450 form 6 antibody P450 P1 antibody P450DX antibody  Xenobiotic monooxygenase antibody</p>
Gene ID:	1543
UniProt:	<a href="#">P04798</a>
Pathways:	<a href="#">Steroid Hormone Biosynthesis</a> , <a href="#">Regulation of Lipid Metabolism by PPARalpha</a>

## Application Details

Application Notes:	WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human, Mouse, Rat
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## Application Details

IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Human, Mouse, Rat, Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections.

IHC-F: Concentration: 0.5-1 µg/mL, Tested Species: Human, Mouse

Notes: Tested Species: Species with positive results. Other applications have not been tested.

Optimal dilutions should be determined by end users.

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P) and IHC(F).

Restrictions: For Research Use only

## Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05 mg Sodium azide.

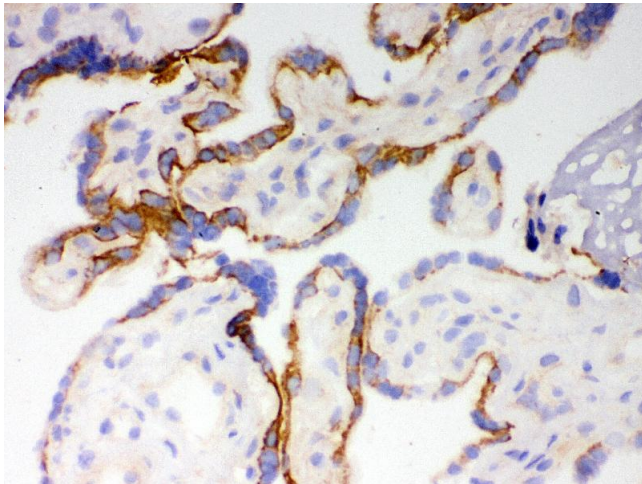
Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling Advice: Avoid repeated freezing and thawing.

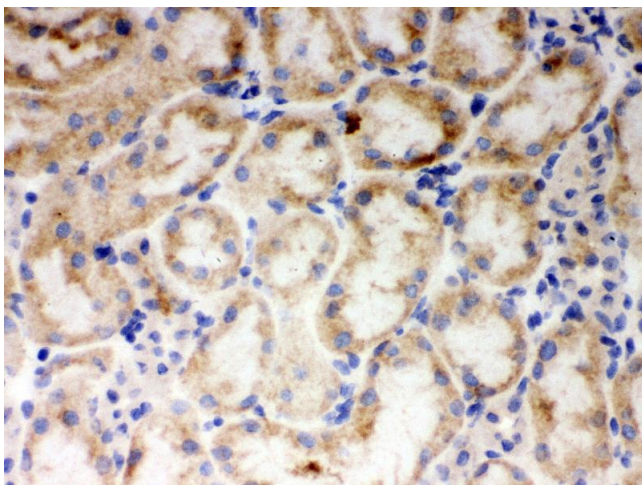
Storage: 4 °C/-20 °C

Storage Comment: At -20°C for one year. After reconstitution, at 4°C for one month.  
It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.



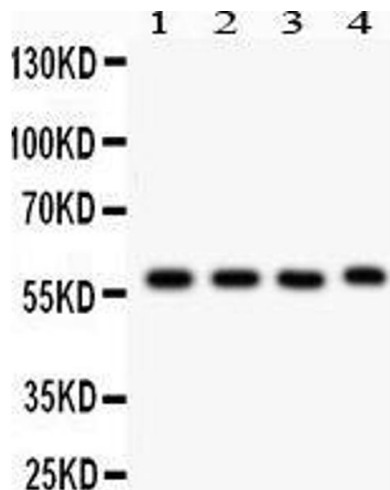
**Immunohistochemistry**

**Image 1.** Anti- CYP1A1 Picoband antibody,IHC(F) IHC(F):  
Human Placenta Tissue



**Immunohistochemistry**

**Image 2.** Anti- CYP1A1 Picoband antibody,IHC(F) IHC(F):  
Mouse Kidney Tissue



**Western Blotting**

**Image 3.**

Please check the [product details page](#) for more images. Overall 6 images are available for ABIN3043819.