10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

Cytochrome P450 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10060

Specification

Cytochrome P450 Antibody - Product Information

Application	**WB**
Primary Accession	P05181
Other Accession	NP_000764
Reactivity	**Human, Mouse, Rat, Dog**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**56849**

Cytochrome P450 Antibody - Additional Information

Gene ID 1571

Application & Usage	**Western blotting (0.5-4 µg/ml) .However, the optimal conditions should be determined individually. The antibody detects ~58kDa cytochrome P450 IIE1 from samples of human, mouse, rat and dog origins.**

Other Names
AHH , AHRR, CYP1A1 , CP11 , CYP1, P1-450, CYPIA1, P450-C, , P450DX, P450-P1

Target/Specificity
Cytochrome p450

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg (0.5 mg/ml) purified rabbit polyclonal antibody in phosphate-buffered saline (PBS) containing 30% glycerol, 0.5% BSA and 0.01% thimerosal.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
Cytochrome P450 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Cytochrome P450 Antibody - Protein Information

Name CYP2E1 {ECO:0000303|PubMed:10553002, ECO:0000312|HGNC:HGNC:2631}

Function
A cytochrome P450 monooxygenase involved in the metabolism of fatty acids (PubMed:10553002, PubMed:18577768). Mechanistically, uses molecular oxygen inserting one oxygen atom into a substrate, and reducing the second into a water molecule, with two electrons provided by NADPH via cytochrome P450 reductase (NADPH--hemoprotein reductase) (PubMed:10553002, PubMed:18577768). Catalyzes the hydroxylation of carbon-hydrogen bonds. Hydroxylates fatty acids specifically at the omega-1 position displaying the highest catalytic activity for saturated fatty acids (PubMed:10553002, PubMed:18577768). May be involved in the oxidative metabolism of xenobiotics (Probable).

Cellular Location
Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:P05182}; Peripheral membrane protein {ECO:0000250|UniProtKB:P05182}. Microsome membrane {ECO:0000250|UniProtKB:P05182}; Peripheral membrane protein {ECO:0000250|UniProtKB:P05182}. Mitochondrion inner membrane {ECO:0000250|UniProtKB:P05182}; Peripheral membrane protein {ECO:0000250|UniProtKB:P05182}. Note=Post-translationally targeted to mitochondria. TOMM70 is required for the translocation across the mitochondrial outer membrane. After translocation into the matrix, associates with the inner membrane as a membrane extrinsic protein {ECO:0000250|UniProtKB:P05182}

Cytochrome P450 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Cytochrome P450 Antibody - Images

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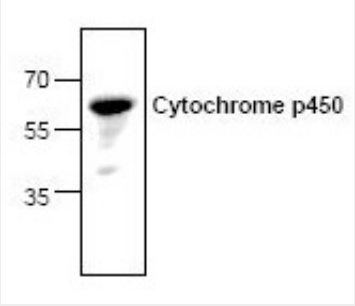

Western blot analysis of cytochrome P450 using Rat kidney tissue lysate.

Cytochrome P450 Antibody - Background

Cytochrome P450 is mainly found in liver, and can metabolize a wide range of compounds such as organic solvents, acetaminophen, dimethylnitrosoamine and aliphatic alcohol, which have certain toxicological effects in humans. Ethanol-induced cytochrome P450 IIE1 is considered to be one of the major causes of oxidative stress in the liver following ethanol treatment.