

Anti-CYP2E1 Antibody
Catalog # ABO11212**Specification**

Anti-CYP2E1 Antibody - Product Information

Application	WB
Primary Accession	P05181
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Cytochrome P450 2E1(CYP2E1) detection. Tested with WB in Human.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-CYP2E1 Antibody - Additional Information

Gene ID 1571

Other Names

Cytochrome P450 2E1, 1.14.13.-, 4-nitrophenol 2-hydroxylase, 1.14.13.n7, CYP11E1, Cytochrome P450-J, Cytochrome P450 2E1, N-terminally processed, CYP2E1, CYP2E

Calculated MW

56849 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

Endoplasmic reticulum membrane; Peripheral membrane protein. Microsome membrane; Peripheral membrane protein.

Protein Name

Cytochrome P450 2E1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human CYP2E1 (100-118aa RGDLPFAFHAHRDRGIIFNN).

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

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.

Sequence Similarities

Belongs to the cytochrome P450 family.

Anti-CYP2E1 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

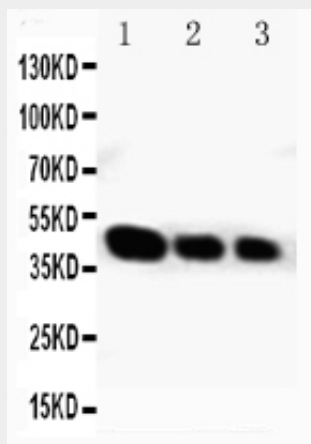
Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:P05182}; Peripheral membrane protein {ECO:0000250|UniProtKB:P05182}. Microsome membrane {ECO:0000250|UniProtKB:P05182}; Peripheral membrane protein {ECO:0000250|UniProtKB:P05182}. Mitochondrion inner membrane {ECO:0000250|UniProtKB:P05182}; Peripheral 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}

Anti-CYP2E1 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 Cytometry](#)
- [Cell Culture](#)

Anti-CYP2E1 Antibody - Images



Anti-CYP2E1 antibody, ABO11212, Western blotting Recombinant Protein Detection Source: E.coli derived -recombinant human CYP2E1, 51.6KD(162aa tag+ M1-S290) Lane 1: Recombinant Human CYP2E1 Protein 10ng Lane 2: Recombinant Human CYP2E1 Protein 5ng Lane 3: Recombinant Human CYP2E1 Protein 2.5ng

Anti-CYP2E1 Antibody - Background

CYP2E1, also known as P450IIE1, is a member of the P450IIE subfamily which is ethanol-inducible. It has at least 1 gene which is mapped to 10q24.3-qter, and a second is likely in rat and in man. Both the rat and human proteins encoded by this gene contain 493 amino acids and calculated molecular masses of 56,634 and 56,916 daltons, respectively. In addition, genetic polymorphisms in the 5-prime flanking region of the human P450IIE1 gene affected its binding of transacting factor and changed its transcriptional regulation, which may lead to interindividual differences of microsomal drug oxidation activity. P450IIE1 is an important enzyme for the catalysis of the conversion of ethanol to acetaldehyde and to acetate in humans, and it is also involved in the metabolism of nitrosamines. Due to the possible correlation of P450IIE1 genes with malignancy, clinical studies of RFLP patterns of these genes in cancer may be useful.