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CYP2E1 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP8644b

Specification

CYP2E1 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession P05181

CYP2E1 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 1571

Other Names
Cytochrome P450 2E1, 11413-, 4-nitrophenol 2-hydroxylase, 11413n7, CYPIIE1, Cytochrome P450-J, Cytochrome P450 2E1, N-terminally processed, CYP2E1, CYP2E

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8644b was selected from the C-term region of human CYP2E1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CYP2E1 Antibody (C-term) Blocking Peptide - 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:<a

href="http://www.uniprot.org/citations/18577768" target="_blank">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}

CYP2E1 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

CYP2E1 Antibody (C-term) Blocking Peptide - Images

CYP2E1 Antibody (C-term) Blocking Peptide - Background

CYP2E1 is a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. This protein localizes to the endoplasmic reticulum and is induced by ethanol, the diabetic state, and starvation. The enzyme metabolizes both endogenous substrates, such as ethanol, acetone, and acetal, as well as exogenous substrates including benzene, carbon tetrachloride, ethylene glycol, and nitrosamines which are premutagens found in cigarette smoke. Due to its many substrates, this enzyme may be involved in such varied processes as gluconeogenesis, hepatic cirrhosis, diabetes, and cancer.

CYP2E1 Antibody (C-term) Blocking Peptide - References

Mingazova,S.R., et.al., Med Tr Prom Ekol 11, 30-33 (2009)Robinson,R.C., et.al., Pharmacology 39 (3), 137-144 (1989)