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CYP4X1 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP7885a

Specification

CYP4X1 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q8N118

CYP4X1 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 260293

Other Names
Cytochrome P450 4X1, CYPIVX1, CYP4X1

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7885a was selected from the N-term region of human CYP4X1. 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.

CYP4X1 Antibody (N-term) Blocking Peptide - Protein Information

Name CYP4X1 {ECO:0000303|PubMed:18549450, ECO:0000312|HGNC:HGNC:20244}

Function
A cytochrome P450 monooxygenase that selectively catalyzes the epoxidation of the last double bond of the arachidonoyl moiety of anandamide, potentially modulating endocannabinoid signaling. Has no hydroxylase activity toward various fatty acids, steroids and prostaglandins. 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 (CPR; NADPH-ferrihemoprotein reductase).

Cellular Location
Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q6A152}; Single-pass membrane protein. Microsome membrane {ECO:0000250|UniProtKB:Q6A152}; Single-pass membrane protein

Tissue Location

Expressed in brain, heart, kidney and skin and, at lower levels, in skeletal muscle and liver (PubMed:16478468, PubMed:18549450). In the brain, high levels are detected in amygdala and lower levels in globus pallidus and cerebellum (PubMed:18549450) In the heart, very high levels in aorta, but very low levels in other heart regions (PubMed:16478468, PubMed:18549450). Also expressed in breast, prostate and colon (PubMed:18549450)

CYP4X1 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

CYP4X1 Antibody (N-term) Blocking Peptide - Images

CYP4X1 Antibody (N-term) Blocking Peptide - Background

CYP4X1 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. The expression pattern of a similar rat protein suggests that this protein may be involved in neurovascular function in the brain.

CYP4X1 Antibody (N-term) Blocking Peptide - References

Savas,U., Arch. Biochem. Biophys. 436 (2), 377-385 (2005)Nelson,D.R., Pharmacogenetics 14 (1), 1-18 (2004)Bylund,J., Biochem. Biophys. Res. Commun. 296 (3), 677-684 (2002)