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CYP2D6 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP14520a

Specification

CYP2D6 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession P10635

CYP2D6 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 1565

Other Names
Cytochrome P450 2D6, CYPIID6, Cytochrome P450-DB1, Debrisoquine 4-hydroxylase, CYP2D6, CYP2DL1

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.

CYP2D6 Antibody (N-term) Blocking Peptide - Protein Information

Name CYP2D6 {ECO:0000303|PubMed:21289075, ECO:0000312|HGNC:HGNC:2625}

Function
A cytochrome P450 monooxygenase involved in the metabolism of fatty acids, steroids and retinoids (PubMed:18698000, PubMed:<a href="http://www.uniprot.org/citations/19965576"

CYP2D6 Antibody (N-term) Blocking Peptide - Background

This gene encodes a member of the cytochrome P450superfamily of enzymes. The cytochrome P450 proteins aremonooxygenases which catalyze many reactions involved in drugmetabolism and synthesis of cholesterol, steroids and other lipids.This protein localizes to the endoplasmic reticulum and is known tometabolize as many as 20% of commonly prescribed drugs. Itssubstrates include debrisoquine, an adrenergic-blocking drug;sparteine and propafenone, both anti-arrythmic drugs; andamitryptiline, an anti-depressant. The gene is highly polymorphicin the population; certain alleles result in the poor metabolizerphenotype, characterized by a decreased ability to metabolize theenzyme's substrates. The gene is located near two cytochrome P450pseudogenes on chromosome 22q13.1. Alternatively spliced transcriptvariants encoding different isoforms have been found for this gene.

CYP2D6 Antibody (N-term) Blocking Peptide - References

Abduljalil, K., et al. Clin. Pharmacol. Ther. 88(5):643-651(2010)Novalbos, J., et al. J Clin Psychopharmacol 30(5):504-511(2010)Thompson, A.M., et al. Breast Cancer Res. Treat. (2010) In press :Gonzalez-Tejera, G., et al. P R Health Sci J 29(3):299-304(2010)Abraham, J.E., et al. Breast Cancer Res. 12 (4), R64 (2010) :

target="_blank">19965576,
PubMed:<a href="http://www.uniprot.org/citations/20972997"
target="_blank">20972997,
PubMed:<a href="http://www.uniprot.org/citations/21289075"
target="_blank">21289075,
PubMed:<a href="http://www.uniprot.org/citations/21576599"
target="_blank">21576599).
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:<a href="http://www.uniprot.org/citations/18698000"
target="_blank">18698000,
PubMed:<a href="http://www.uniprot.org/citations/19965576"
target="_blank">19965576,
PubMed:<a href="http://www.uniprot.org/citations/20972997"
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PubMed:<a href="http://www.uniprot.org/citations/21289075"
target="_blank">21289075,
PubMed:<a href="http://www.uniprot.org/citations/21576599"
target="_blank">21576599).
Catalyzes the epoxidation of double bonds of polyunsaturated fatty acids (PUFA) (PubMed:<a href="http://www.uniprot.org/citations/19965576"
target="_blank">19965576,
PubMed:<a href="http://www.uniprot.org/citations/20972997"
target="_blank">20972997).
Metabolizes endocannabinoid arachidonoylethanolamide (anandamide) to 20-hydroxyeicosatetraenoic acid ethanolamide (20-HETE-EA) and 8,9-, 11,12-, and 14,15-epoxyeicosatrienoic acid ethanolamides (EpETrE-EAs), potentially modulating endocannabinoid system signaling (PubMed:<a href="http://www.uniprot.org/citations/18698000"
target="_blank">18698000,
PubMed:<a href="http://www.uniprot.org/citations/21289075"
target="_blank">21289075).
Catalyzes the hydroxylation of carbon-hydrogen bonds. Metabolizes cholesterol toward 25- hydroxycholesterol, a physiological regulator of cellular cholesterol homeostasis (PubMed:<a href="

http://www.uniprot.org/citations/21576599" target="_blank">21576599). Catalyzes the oxidative transformations of all-trans retinol to all-trans retinal, a precursor for the active form all-trans-retinoic acid (PubMed:10681376). Also involved in the oxidative metabolism of drugs such as antiarrhythmics, adrenoceptor antagonists, and tricyclic antidepressants.

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

CYP2D6 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides