

CYP2C9 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP7874a**Specification**

CYP2C9 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [P11712](#)**CYP2C9 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 1559**Other Names**

Cytochrome P450 2C9, 11413-, (R)-limonene 6-monooxygenase, (S)-limonene 6-monooxygenase, (S)-limonene 7-monooxygenase, CYP11C9, Cytochrome P-450MP, Cytochrome P450 MP-4, Cytochrome P450 MP-8, Cytochrome P450 PB-1, S-mephenytoin 4-hydroxylase, CYP2C9, CYP2C10

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP7874a](/products/AP7874a) was selected from the N-term region of human CYP2C9. 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.

CYP2C9 Antibody (N-term) Blocking Peptide - Protein Information**Name** CYP2C9 {ECO:0000303|PubMed:11950794, ECO:0000312|HGNC:HGNC:2623}**Function**

A cytochrome P450 monooxygenase involved in the metabolism of various endogenous substrates, including fatty acids and steroids (PubMed:[7574697](http://www.uniprot.org/citations/7574697), PubMed:[9866708](http://www.uniprot.org/citations/9866708), PubMed:[9435160](http://www.uniprot.org/citations/9435160), PubMed:[12865317](http://www.uniprot.org/citations/12865317), PubMed:[15766564](http://www.uniprot.org/citations/15766564), PubMed:[19965576](http://www.uniprot.org/citations/19965576), PubMed:[21576599](http://www.uniprot.org/citations/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:7574697, PubMed:9866708, PubMed:9435160, PubMed:12865317, PubMed:15766564, PubMed:19965576, PubMed:21576599). Catalyzes the epoxidation of double bonds of polyunsaturated fatty acids (PUFA) (PubMed:7574697, PubMed:15766564, PubMed:19965576, PubMed:9866708). Catalyzes the hydroxylation of carbon-hydrogen bonds. Metabolizes cholesterol toward 25-hydroxycholesterol, a physiological regulator of cellular cholesterol homeostasis (PubMed:21576599). Exhibits low catalytic activity for the formation of catechol estrogens from 17beta- estradiol (E2) and estrone (E1), namely 2-hydroxy E1 and E2 (PubMed:12865317). Catalyzes bisallylic hydroxylation and hydroxylation with double-bond migration of polyunsaturated fatty acids (PUFA) (PubMed:9866708, PubMed:9435160). Also metabolizes plant monoterpenes such as limonene. Oxygenates (R)- and (S)-limonene to produce carveol and perillyl alcohol (PubMed:11950794). Contributes to the wide pharmacokinetics variability of the metabolism of drugs such as S- warfarin, diclofenac, phenytoin, tolbutamide and losartan (PubMed:25994031).

Cellular Location

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

CYP2C9 Antibody (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

CYP2C9 Antibody (N-term) Blocking Peptide - Images

CYP2C9 Antibody (N-term) Blocking Peptide - Background

CYP2C9 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 its expression is induced by rifampin. The enzyme is known to metabolize many xenobiotics, including phenytoin, tolbutamide, ibuprofen and S-warfarin.

CYP2C9 Antibody (N-term) Blocking Peptide - References

Matimba,A., Hum. Genomics 3 (2), 169-190 (2009)Nelson,D.R., Pharmacogenetics 14 (1), 1-18 (2004)