

Anti-Cytochrome P450 2C9 Antibody

Catalog # AP53664

Product Information

Application	WB
Primary Accession	P11712
Other Accession	Q5VX92 , Q8WW80
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	55628

Additional Information

Gene ID	1559
Other Names	Cytochrome P450 2C9, 1.14.14.1, (R)-limonene 6-monooxygenase, 1.14.14.53, (S)-limonene 6-monooxygenase, 1.14.14.51, (S)-limonene 7-monooxygenase, 1.14.14.52, CYP11C9, Cholesterol 25-hydroxylase, Cytochrome P-450MP, Cytochrome P450 MP-4, Cytochrome P450 MP-8, Cytochrome P450 PB-1, S-mephenytoin 4-hydroxylase, CYP2C9 {ECO:0000303 PubMed:11950794, ECO:0000312 HGNC:HGNC:2623}
Target/Specificity	Recognizes endogenous levels of Cytochrome P450 2C9 protein.
Dilution	WB~~1/500 - 1/1000
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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: 12865317 , PubMed: 15766564 , PubMed: 19965576 , PubMed: 21576599 , PubMed: 7574697 , PubMed: 9435160 , PubMed: 9866708). 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: 12865317 , PubMed: 15766564 , PubMed: 19965576 , PubMed: 21576599 , PubMed: 7574697 , PubMed: 9435160 , PubMed: 9866708). Catalyzes the epoxidation of double bonds of polyunsaturated fatty acids (PUFA) (PubMed: 15766564 ,

PubMed:[19965576](#), PubMed:[7574697](#), 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:[9435160](#), PubMed:[9866708](#)). 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](#)).

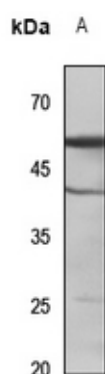
Cellular Location

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

Background

Rabbit polyclonal antibody to Cytochrome P450 2C9

Images



Western blot analysis of Cytochrome P450 2C9 expression in mouse liver (A) whole cell lysates.

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