

Cytochrome P450 2C9 Antibody

Rabbit mAb

Catalog # AP91976

Product Information

Application	WB, IF, FC, ICC
Primary Accession	P11712
Reactivity	Human
Clonality	Monoclonal
Other Names	CPC9; CYP2C; CYP2C10; CYP2C9; CYPIIC9; P450 PB1; P450MP;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	55628

Additional Information

Dilution	WB 1:500~1:2000 ICC/IF 1:50~1:200 FC 1:500
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Cytochrome P450 2C9
Description	Cytochromes P450 are a group of heme-thiolate monooxygenases. In liver microsomes, this enzyme is involved in an NADPH-dependent electron transport pathway. It oxidizes a variety of structurally unrelated compounds, including steroids, fatty acids, and xenobiotics.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

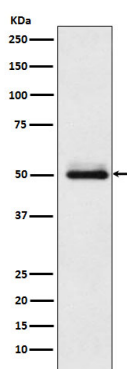
Name	CYP2C9 {ECO:0000303 PubMed:11950794, ECO:0000312 HGNC:HGNC:2623}
Function	A cytochrome P450 monooxygenase involved in the metabolism of various endogenous substrates, including fatty acids and steroids (PubMed: 12865317 , PubMed: 15766564 , PubMed: 19965576 , PubMed: 21576599 , PubMed: 7574697 , 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 17 β -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

Images



Western blot analysis of Cytochrome P450 2C9 expression in HepG2 cell lysate.

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