10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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

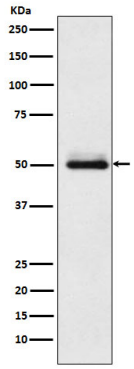
Name	CYP2C9 {ECO:0000303|PubMed:11950794, ECO:0000312|HGNC:HGNC:2623}
Function	A cytochrome P450 monooxygenase involved in the metabolism of various endogenous substrates, including fatty acids and steroids (PubMed:12865317, PubMed:15766564, PubMed:19965576, PubMed:21576599, PubMed:7574697, PubMed:9435160, 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 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

Images



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