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

Recombinant Anti-Cytochrome P450 2C9 Rabbit mAb

Catalog # AP95281

Product Information

Application	WB, FC, IF/IC
Primary Accession	P11712
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal
Calculated MW	55628

Additional Information

Gene ID	1559
Other Names	CYP2C10; Cytochrome P450 2C9; (R)-limonene 6-monooxygenase; (S)-limonene 6-monooxygenase; (S)-limonene 7-monooxygenase; CYPIIC9; Cytochrome P-450MP; Cytochrome P450 MP-4; Cytochrome P450 MP-8; Cytochrome P450 PB-1; S-mephenytoin 4-hydroxylase
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within human Cytochrome P450 2C9 protein. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) FC~~1:10~50 IF/IC~~N/A
Format	Liquid in PBS, pH 7.3, 50% glycerol, 0.05% BSA, and 0.05% Proclin300.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

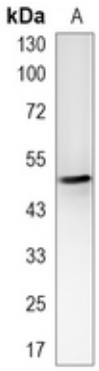
Protein Information

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

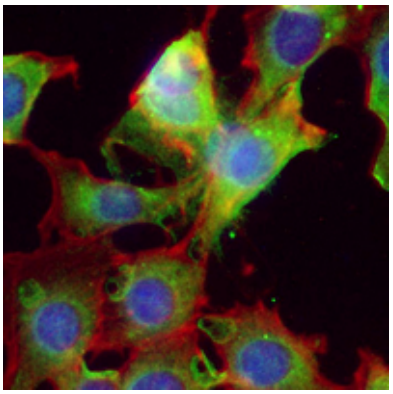
homeostasis (PubMed:21576599). Exhibits low catalytic activity for the formation of catechol estrogens from 17beta- estradiol (E2) and estrone (E1), namely 2-hydroxy E1 and E2 (PubMed:12865317). Catalyzes bisallylic hydroxylation and hydroxylation with double-bond migration of polyunsaturated fatty acids (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

Images



Western blot analysis of Cytochrome P450 2C9 expression in HepG2 (A) whole cell lysates. (Predicted band size: 56 kD; Observed band size: 50 kD)



Immunofluorescent analysis of Cytochrome P450 2C9 staining in HepG2 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with an AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.