

Active Recombinant Human CYP2C9 2 (R144C)

Cat. No. CYP2C9-544H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human Cytochrome P450 2C9*2 (R144C) was expressed in E. coli.
Species	Human
Source	E.coli
Description	<p>This gene encodes 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.</p> <p>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. Studies identifying individuals who are poor metabolizers of phenytoin and tolbutamide suggest that this gene is polymorphic. The gene is located within a cluster of cytochrome P450 genes on chromosome 10q24.</p>
Bio-activity	12-88 units/mg protein
Molecular Mass	mol wt 54370 g/mol
Unit Definition	One unit will convert 1.0 nanomole of diclofenac (2-(2,6-dichloranilino) phenylacetic acid) 4'-hydroxylated product per minute at pH 7.4 at 37 °C.
Storage	-70°C
Concentration	3.5-25 mg protein/mL (protein)50-150 nmol/mL (P450)6-14 nmol/mg protein (specific

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GENE INFORMATION

Gene Name	CYP2C9 cytochrome P450, family 2, subfamily C, polypeptide 9 [Homo sapiens (human)]
Official Symbol	CYP2C9
Synonyms	CYP2C9; CPC9; CYP2C; CYP2C10; CYP11C9; P45011C9; cytochrome P450, family 2, subfamily C, polypeptide 9; cytochrome P450 2C9; cytochrome P-450MP; cytochrome P450 PB-1; microsomal monooxygenase; xenobiotic monooxygenase; flavoprotein-linked monooxygenase; cytochrome P-450 S-mephenytoin 4-hydroxylase; NP_000762.2; EC 1.14.13.48; EC 1.14.13.49; EC 1.14.13.80
Gene ID	1559
mRNA Refseq	NM_000771
Protein Refseq	?NP_000762
MIM	601130
UniProt ID	P11712
Chromosome Location	10q24
Pathway	Arachidonate Epoxygenase / Epoxide Hydrolase; Arachidonic acid metabolism; Drug metabolism - cytochrome P450

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Function

(R)-limonene 6-monooxygenase activity; drug binding; heme binding

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