

Active Recombinant Human CYP2C19

Cat. No. CYP2C19-541H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human CYP2C19 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. This protein localizes to the endoplasmic reticulum and is known to metabolize many xenobiotics, including the anticonvulsive drug mephenytoin, omeprazole, diazepam and some barbiturates. Polymorphism within this gene is associated with variable ability to metabolize mephenytoin, known as the poor metabolizer and extensive metabolizer phenotypes. The gene is located within a cluster of cytochrome P450 genes on chromosome 10q24.</p>
Bio-activity	12-110 units/mg protein
Molecular Mass	mol wt 54783.3 g/mol
Unit Definition	One unit will convert 1.0 nanomole of omeprazole (6-methoxy-2-[(4-methoxy-3,5-dimethylpyridin-2-yl)methylsulfinyl]-1H-benzimidazole) to 5-hydroxyomeprazole per minute at pH 7.4 at 37 °C.
Storage	-70°C

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Concentration 3.5-25 mg/mL protein 50-150 nmol/mL (P450) 6-14 nmol/mg protein (specific content)

GENE INFORMATION

Gene Name CYP2C19 cytochrome P450, family 2, subfamily C, polypeptide 19 [Homo sapiens (human)]

Official Symbol CYP2C19

Synonyms CYP2C19; CPCJ; CYP2C; P450C2C; P450IIC19; cytochrome P450, family 2, subfamily C, polypeptide 19; cytochrome P450 2C19; CYP11C17; CYP11C19; cytochrome P450-11A; cytochrome P450-254C; cytochrome P-450 II C; microsomal monooxygenase; xenobiotic monooxygenase; mephenytoin 4-hydroxylase; mephenytoin 4"-hydroxylase; S-mephenytoin 4-hydroxylase; (R)-limonene 6-monooxygenase; (S)-limonene 6-monooxygenase; (S)-limonene 7-monooxygenase; flavoprotein-linked monooxygenase; cytochrome P450, subfamily IIC (mephenytoin 4-hydroxylase), polypeptide 19; NP_000760.1; EC 1.14.13.48; EC 1.14.13.49; EC 1.14.13.80

Gene ID 1557

mRNA Refseq NM_000769

Protein Refseq NP_000760

MIM 124020

UniProt ID P33261


Chromosome Location 10q24

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Pathway	Arachidonic acid metabolism; CYP2E1 reactions; Linoleic acid metabolism
Function	(R)-limonene 6-monooxygenase activity; enzyme binding; iron ion binding

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