

Active Recombinant Human CYP2C19

Cat. No. CYP2C19-542H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CYP2C19 was expressed in <i>Saccharomyces cerevisiae</i> .
Species	Human
Source	<i>S.Cerevisiae</i>
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>
Form	50 mM Tris (pH 7.4), 1 mM EDTA, 20% glycerol
Bio-activity	activity: ≥2 units/pmol enzymes secondary activity: ≥100 units/mg protein (Reductase activity)
Unit Definition	<p>P450 Activity: One unit will oxidize 1 picomole of diclofenac per minute at pH 7.4 at 30 °C. Reductase Activity: One unit will reduce 1 nanomole of cytochrome C per minute in the presence of NADPH at pH 7.4 at 28 °C.</p>

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Storage	?70°C
Concentration	≤90 mg/mL (Protein) ≥10 pmol/mg protein (P450)
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; CYP1IC17; CYP1IC19; 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

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Chromosome Location	10q24
Pathway	Arachidonic acid metabolism; CYP2E1 reactions; Linoleic acid metabolism
Function	(R)-limonene 6-monooxygenase activity; enzyme binding; iron ion binding

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