

Recombinant Human CYP2A6

Cat. No. CYP2A6-125H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CYP2A6 is baculovirus-insect cell expressed with supplemental cDNA expressed human reductase and human cytochrome b5.
Species	Human
Source	Insect Cells
Description	This gene, CYP2A6, 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 its expression is induced by phenobarbital. The enzyme is known to hydroxylate coumarin, and also metabolizes nicotine, aflatoxin B1, nitrosamines, and some pharmaceuticals. Individuals with certain allelic variants are said to have a poor metabolizer phenotype, meaning they do not efficiently metabolize coumarin or nicotine. This gene is part of a large cluster of cytochrome P450 genes from the CYP2A, CYP2B and CYP2F subfamilies on chromosome 19q. The gene was formerly referred to as CYP2A3; however, it has been renamed CYP2A6.
Form	Liquid; Frozen
Available size	0.5 nmole P450 in 0.5 ml
Representative totalprotein	5.3 mg/ml

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concentration	
Representative P450 concentration	190 pmole/mg
Representative cytochrome b5 concentration	470 pmole/mg
Representative catalytic assay	coumarin 7-hydroxylase activity, 4,200 pmol/(mg x min), 22 pmol/pmolP450/min
Storage	-80°C
Official Symbol	CYP2A6

GENE INFORMATION

Gene Name	CYP2A6 cytochrome P450, family 2, subfamily A, polypeptide 6 [Homo sapiens]
Synonyms	CYP2A6; CPA6; CYP2A; CYP2A3; P450PB; CYP1IA6; P450C2A; cytochrome P450, family 2, subfamily A, polypeptide 6; cytochrome P450 2A6; cytochrome P450(I); cytochrome P450 IIA3; coumarin 7-hydroxylase; xenobiotic monooxygenase; 1,4-cineole 2-exo-monooxygenase; flavoprotein-linked monooxygenase; cytochrome P450, subfamily IIA (phenobarbital-inducible), polypeptide 6; EC 1.14.14.1
Gene ID	1548
mRNA Refseq	NM_000762
Protein Refseq	NP_000753

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MIM	122720
UniProt ID	P11509
Chromosome Location	19q13.2
Pathway	Biological oxidations; Caffeine metabolism; Chemical carcinogenesis
Function	aromatase activity; coumarin 7-hydroxylase activity; electron carrier activity; enzyme binding
PDB rendering based on 1z10.	

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