

Recombinant Human CYP1A2

Cat. No. CYP1A2-551H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Cytochrome P450 1A2 Isozyme Microsomes, with P450 Reductase and cytochrome b5 was expressed in baculovirus infected insect cells. Microsomes containing recombinant human CYP1A2, recombinant rabbit NADPH-P450 reductase, and cytochrome b5.
Species	Human
Source	Insect Cells
Description	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. The protein encoded by this gene localizes to the endoplasmic reticulum and its expression is induced by some polycyclic aromatic hydrocarbons (PAHs), some of which are found in cigarette smoke. The enzyme's endogenous substrate is unknown; however, it is able to metabolize some PAHs to carcinogenic intermediates. Other xenobiotic substrates for this enzyme include caffeine, aflatoxin B1, and acetaminophen. The transcript from this gene contains four Alu sequences flanked by direct repeats in the 3' untranslated region.
Form	Solution in 100 mM potassium phosphate buffer, pH 7.4.
Applications	Human cytochrome P450 has been used in a study to investigate non-viral environmental risk factors for nasopharyngeal carcinoma. Human cytochrome P450

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has also been used in a study to investigate the dynamics and hydration of the active sites of mammalian cytochromes.

Storage -70°C

GENE INFORMATION

Gene Name CYP1A2 cytochrome P450, family 1, subfamily A, polypeptide 2 [Homo sapiens (human)]

Official Symbol CYP1A2

Synonyms CYP1A2; CP12; P3-450; P450(PA); cytochrome P450, family 1, subfamily A, polypeptide 2; cytochrome P450 1A2; CYP1A2; P450 form 4; cytochrome P450 4; cytochrome P(3)450; cytochrome P450-P3; dioxin-inducible P3-450; microsomal monooxygenase; xenobiotic monooxygenase; aryl hydrocarbon hydroxylase; flavoprotein-linked monooxygenase; cytochrome P450, subfamily I (aromatic compound-inducible), polypeptide 2; NP_000752.2; EC 1.14.14.1

Gene ID 1544

mRNA Refseq NM_000761

Protein Refseq NP_000752

MIM 124060

UniProt ID P05177

Chromosome Location 15q24.1

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Pathway	Aflatoxin B1 metabolism; Biological oxidations; Caffeine metabolism
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Function	aromatase activity; heme binding; iron ion binding
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