

Recombinant Human CYP1A2 cell lysate

Cat. No. CYP1A2-432HCL **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species	Human
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 enzymes 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.
Size	100 ul
Storage Buffer	1X Sample Buffer (50 mM Tris-HCl, 2% SDS, 10% glycerol, 300 mM 2-mercaptoethanol, 0.01% Bromophenol blue)
Applications	Western Blot;

GENE INFORMATION

Gene Name	CYP1A2 cytochrome P450, family 1, subfamily A, polypeptide 2 [Homo sapiens]
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Official Symbol	CYP1A2
Synonyms	CYP1A2; cytochrome P450, family 1, subfamily A, polypeptide 2; cytochrome P450, subfamily I (aromatic compound inducible), polypeptide 2; cytochrome P450 1A2; CP12; P3 450; 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; P3-450; P450(PA);
Gene ID	1544
mRNA Refseq	NM_000761
Protein Refseq	NP_000752
UniProt ID	P05177
Chromosome Location	15q24.1
Pathway	Aromatic amines can be N-hydroxylated or N-dealkylated by CYP1A2, organism-specific biosystem; Biological oxidations, organism-specific biosystem; Caffeine metabolism, organism-specific biosystem; Caffeine metabolism, conserved biosystem; Cytochrome P450 - arranged by substrate type, organism-specific biosystem; Drug metabolism - cytochrome P450, organism-specific biosystem; Drug metabolism - cytochrome P450, conserved biosystem;
Function	aromatase activity; caffeine oxidase activity; demethylase activity; electron carrier activity; enzyme binding; heme binding; metal ion binding; monooxygenase activity; oxidoreductase activity; oxidoreductase activity, acting on paired donors, with

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incorporation or reduction of molecular oxygen, reduced flavin or flavoprotein as one donor, and incorporation of one atom of oxygen;

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