

Recombinant Human CYP3A4 cell lysate

Cat. No. CYP3A4-436HCL **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species	Human
Description	This gene, CYP3A4, 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 glucocorticoids and some pharmacological agents. This enzyme is involved in the metabolism of approximately half the drugs which are used today, including acetaminophen, codeine, cyclosporin A, diazepam and erythromycin. The enzyme also metabolizes some steroids and carcinogens. This gene is part of a cluster of cytochrome P450 genes on chromosome 7q21.1. Previously another CYP3A gene, CYP3A3, was thought to exist; however, it is now thought that this sequence represents a transcript variant of CYP3A4.
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

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Gene Name	CYP3A4 cytochrome P450, family 3, subfamily A, polypeptide 4 [Homo sapiens]
Official Symbol	CYP3A4
Synonyms	CYP3A4; cytochrome P450, family 3, subfamily A, polypeptide 4; CYP3A3, cytochrome P450, subfamily IIIA (nifedipine oxidase), polypeptide 4; cytochrome P450 3A4; nifedipine oxidase; cytochrome P450 3A3; cytochrome P450 HLP; cytochrome P450-PCN1; cytochrome P450 NF-25; albendazole sulfoxidase; quinine 3-monooxygenase; albendazole monooxygenase; P450-III, steroid inducible; glucocorticoid-inducible P450; taurochenodeoxycholate 6-alpha-hydroxylase; cytochrome P450, subfamily IIIA (nifedipine oxidase), polypeptide 3; cytochrome P450, subfamily IIIA (nifedipine oxidase), polypeptide 4; HLP; CP33; CP34; CYP3A; NF-25; CYP3A3; P450C3; CYP3A3; CYP3A4; P450PCN1; MGC126680;
Gene ID	1576
mRNA Refseq	NM_001202855
Protein Refseq	NP_001189784
MIM	124010
UniProt ID	P08684
Chromosome Location	7q21.1
Pathway	Bile secretion, organism-specific biosystem; Bile secretion, conserved biosystem; Biological oxidations, organism-specific biosystem; Codeine and morphine metabolism, organism-specific biosystem; Cytochrome P450 - arranged by substrate type, organism-specific biosystem; Drug metabolism - cytochrome P450, organism-

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specific biosystem; Drug metabolism - cytochrome P450, conserved biosystem;

Function

albendazole monooxygenase activity; caffeine oxidase activity; electron carrier activity; enzyme binding; heme binding; iron ion binding; metal ion binding; monooxygenase activity; monooxygenase activity; oxidoreductase activity; oxidoreductase activity, acting on paired donors, with incorporation or reduction of molecular oxygen, reduced flavin or flavoprotein as one donor, and incorporation of one atom of oxygen; oxygen binding; quinine 3-monooxygenase activity; steroid binding; steroid hydroxylase activity; taurochenodeoxycholate 6alpha-hydroxylase activity; testosterone 6-beta-hydroxylase activity; vitamin D 24-hydroxylase activity; vitamin D3 25-hydroxylase activity;

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