

Recombinant Human CYP3A4, His-tagged

Cat. No. CYP3A4-11784H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human CYP3A4 protein, fused to His-tag, was expressed in E.coli and purified by Ni-sepharose.

Species Human

Source E.coli

ProteinLength 154-503a.a.

Description This gene encodes a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases that 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 in use 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. Alternatively spliced transcript variants encoding different isoforms have been identified.

Storage The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.

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Storage Buffer 1M PBS (58mM Na₂HPO₄, 17mM NaH₂PO₄, 68mM NaCl, pH8.) added with 300mM Imidazole and 0.7% Sarcosyl, 15% glycerol.

GENE INFORMATION

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

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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-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,

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