

Recombinant Human CYP1A1, GST-tagged

Cat. No. CYP1A1-11765H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human CYP1A1 protein, fused to GST-tag, was expressed in E.coli and purified by GSH-sepharose.

Species Human

Source E.coli

ProteinLength 115-465a.a.

Description This gene, CYP1A1, 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 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. The gene has been associated with lung cancer risk. A related family member, CYP1A2, is located approximately 25 kb away from CYP1A1 on chromosome 15.

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

Storage Buffer 1M PBS (58mM Na₂HPO₄, 17mM NaH₂PO₄, 68mM NaCl, pH8.) added with 100mM GSH and 1% Triton X-100, 15% glycerol.

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GENE INFORMATION

Gene Name	CYP1A1 cytochrome P450, family 1, subfamily A, polypeptide 1 [Homo sapiens]
Official Symbol	CYP1A1
Synonyms	CYP1A1; cytochrome P450, family 1, subfamily A, polypeptide 1; CYP1, cytochrome P450, subfamily I (aromatic compound inducible), polypeptide 1; cytochrome P450 1A1; CP11; P1 450; P450 C; P450DX; CYP1A1; cytochrome P450-C; cytochrome P450-P1; cytochrome P450 form 6; xenobiotic monooxygenase; aryl hydrocarbon hydroxylase; flavoprotein-linked monooxygenase; cytochrome P1-450, dioxin-inducible; cytochrome P450, subfamily I (aromatic compound-inducible), polypeptide 1; AHH; AHRR; CYP1; P1-450; P450-C;
Gene ID	1543
mRNA Refseq	NM_000499
Protein Refseq	NP_000490
MIM	108330
UniProt ID	P04798
Chromosome Location	15q24.1
Pathway	Biological oxidations, organism-specific biosystem; Cytochrome P450 - arranged by substrate type, organism-specific biosystem; Fatty Acid Omega Oxidation, organism-specific biosystem; Fatty acid, triacylglycerol, and ketone body metabolism, organism-specific biosystem; Metabolic pathways, organism-specific biosystem; Metabolism,

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organism-specific biosystem; Metabolism of lipids and lipoproteins, organism-specific biosystem;

Function

aromatase activity; demethylase activity; electron carrier activity; enzyme binding; flavonoid 3-monooxygenase activity; heme binding; metal ion binding; oxidoreductase activity; oxidoreductase activity, acting on diphenols and related substances as donor

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