

Active Recombinant Human CYP1B1 Protein

Cat. No. CYP1B1-01H Lot. No. (See product label)

SPECIFICATION

Product Overview	<p>Recombinant human CYP1B1 and human CYP-reductase without tag was coexpressed in Escherichia coli.</p> <p>Amount: 0.5 nmol cytochrome P450</p>
Species	Human
Source	E.coli
Description	<p>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 enzyme encoded by this gene localizes to the endoplasmic reticulum and metabolizes procarcinogens such as polycyclic aromatic hydrocarbons and 17β-estradiol. Mutations in this gene have been associated with primary congenital glaucoma; therefore it is thought that the enzyme also metabolizes a signaling molecule involved in eye development, possibly a steroid.</p>
Bio-activity	<p>Cytochrome c Reductase Activity: 44 nmol/min/mg protein</p> <p>P450 Activity Data(Unless otherwise stated, all assays are carried out at 37 centigrade in 50 mM potassium phosphate buffer (pH 7.4) containing 5 mM magnesium chloride and an NADPH generating system [5 mM glucose 6-phosphate, 1 mM NADP+, 1 U/ml glucose 6-phosphate dehydrogenase])</p> <p>Activity: 17β-estradiol 4-hydroxylase</p> <p>Linear with time up to: 30 min(Determined at 4 μM substrate, using a P450</p>

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concentration of 12.5 pmol/ml)
 Linear with P450 up to: 60 pmol/ml(Determined at 4 μ M substrate, using an incubation time of 5 min)
 Vmax: 1.2 pmol/min/pmol CYP
 Km: 0.58 μ M

Usage For laboratory (research) purposes only.

Storage Store at -80 centigrade. Avoid frequent temperature changes. Thaw on ice.

Concentration
 P450 Concentration: 1.0 nmol/ml
 Protein Concentration: 10.0 mg/ml
 Specific P450 Content: 100 pmol/mg protein

Storage Buffer 50 mM Tris-acetate (pH 7.6), 250 mM sucrose, 0.25 mM EDTA

GENE INFORMATION

Gene Name CYP1B1 cytochrome P450 family 1 subfamily B member 1 [Homo sapiens (human)]

Official Symbol CYP1B1

Synonyms CYP1B1; cytochrome P450 family 1 subfamily B member 1; CP1B; ASGD6; GLC3A; CYP1B1; P4501B1; cytochrome P450 1B1; aryl hydrocarbon hydroxylase; cytochrome P450, family 1, subfamily B, polypeptide 1; cytochrome P450, subfamily I (dioxin-inducible), polypeptide 1 (glaucoma 3, primary infantile); dioxin-inducible cytochrome p450; flavoprotein-linked monooxygenase; hydroperoxy icosatetraenoate dehydratase; microsomal monooxygenase; xenobiotic monooxygenase; EC 1.14.14.1; EC 4.2.1.152

Gene ID 1545

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mRNA Refseq	NM_000104
Protein Refseq	NP_000095
MIM	601771
UniProt ID	Q16678

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