

Active Recombinant Rhesus monkey CYP1B1 Protein

Cat. No. CYP1B1-130R Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant rhesus monkey CYP1B1 protein and human CYP-reductase without tag were coexpressed in E. coli.

Species Rhesus macaque

Source E.coli

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 enzyme encoded by this gene localizes to the endoplasmic reticulum and metabolizes procarcinogens such as polycyclic aromatic hydrocarbons and 17beta-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.

Bio-activity Cytochrome c Reductase Activity: 90 nmol/min/mg protein
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])
Activity: 7-ethoxyresorufin O-deethylase
Linear with time up to: 6 min(Determined at 0.1 μ M substrate, using a P450 concentration of 2 pmol/ml)

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	<p>Linear with P450 up to: 2 pmol/ml (Determined at 0.1 μM substrate, using an incubation time of 5 min)</p> <p>Vmax: 1.2 pmol/min/pmol CYP</p> <p>Km: 0.07 μM</p>
Usage	For laboratory (research) purposes only
Storage	Store at -80 centigrade. Avoid frequent temperature changes. Thaw on ice.
Concentration	<p>P450 Concentration: 5.5 nmol/ml</p> <p>Protein Concentration: 7.8 mg/ml</p> <p>Specific P450 Content: 705 pmol/mg protein</p>
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, polypeptide 1 [<i>Macaca mulatta</i> (Rhesus monkey)]
Official Symbol	CYP1B1
Synonyms	CYP1B1; cytochrome P450, family 1, subfamily B, polypeptide 1; cytochrome P450 1B1
Gene ID	710385
mRNA Refseq	NM_001266868
Protein Refseq	NP_001253797

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UniProt ID

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