

Active Recombinant Human CYP2E1 Protein

Cat. No. CYP2E1-79H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human CYP2E1 protein and CYP-reductase without tag were coexpressed in E. coli.
Species	Human
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. This protein localizes to the endoplasmic reticulum and is induced by ethanol, the diabetic state, and starvation. The enzyme metabolizes both endogenous substrates, such as ethanol, acetone, and acetal, as well as exogenous substrates including benzene, carbon tetrachloride, ethylene glycol, and nitrosamines which are premutagens found in cigarette smoke. Due to its many substrates, this enzyme may be involved in such varied processes as gluconeogenesis, hepatic cirrhosis, diabetes, and cancer.
Bio-activity	Cytochrome c Reductase Activity: 673 nmol/min/mg protein P450 Activity Data(Unless otherwise stated, all assays are carried out at 37 centigrade in 100 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: Chlorzoxazone 6-hydroxylase

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Linear with time up to: 10 min(Determined at 40 μ M substrate, using a P450 concentration of 50 pmol/ml)
 Linear with P450 up to: 50 pmol/ml(Determined at 40 μ M substrate, using an incubation time of 5 min)
 Vmax: 9.8 pmol/min/pmol CYP
 Km: 48 μ M

Usage For laboratory (research) purposes only

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

Concentration
 P450 Concentration: 4.3 nmol/ml
 Cytochrome b5 Concentration: 21.4 nmol/ml
 Protein Concentration: 17.5 mg/ml
 Specific P450 Content: 246 pmol/mg protein

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

GENE INFORMATION

Gene Name CYP2E1 cytochrome P450 family 2 subfamily E member 1 [Homo sapiens (human)]

Official Symbol CYP2E1

Synonyms CYP2E1; cytochrome P450 family 2 subfamily E member 1; CPE1; CYP2E; P450-J; P450C2E; cytochrome P450 2E1; 4-nitrophenol 2-hydroxylase; CYP11E1; cytochrome P450, family 2, subfamily E, polypeptide 1; cytochrome P450, subfamily IIE (ethanol-inducible), polypeptide 1; cytochrome P450-J; flavoprotein-linked monooxygenase; microsomal monooxygenase; xenobiotic monooxygenase

Gene ID 1571

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mRNA Refseq	NM_000773
Protein Refseq	NP_000764
MIM	124040
UniProt ID	P05181

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