

## Active Recombinant Human CYP2E1 Protein

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

### SPECIFICATION

<b>Product Overview</b>	Recombinant human CYP2E1 protein and CYP-reductase without tag were coexpressed in E. coli.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Description</b>	<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. 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.</p>
<b>Bio-activity</b>	<p>Cytochrome c Reductase Activity: 673 nmol/min/mg protein</p> <p>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])</p> <p>Activity: Chlorzoxazone 6-hydroxylase</p>

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Linear with time up to: 10 min(Determined at 40  $\mu$ M substrate, using a P450 concentration of 50 pmol/ml)  
 Linear with P450 up to: 50 pmol/ml(Determined at 40  $\mu$ M substrate, using an incubation time of 5 min)  
 Vmax: 9.8 pmol/min/pmol CYP  
 Km: 48  $\mu$ 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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<b>mRNA Refseq</b>	NM_000773
<b>Protein Refseq</b>	NP_000764
<b>MIM</b>	124040
<b>UniProt ID</b>	P05181

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