

## Active Recombinant Pig CYP2E1 Protein

Cat. No. CYP2E1-134P Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant pig CYP2E1 protein and CYP-reductase without tag were coexpressed in E. coli.
<b>Species</b>	Pig
<b>Source</b>	E.coli
<b>Description</b>	<p>A cytochrome P450 monooxygenase involved in the metabolism of fatty acids. Mechanistically, uses molecular oxygen inserting one oxygen atom into a substrate, and reducing the second into a water molecule, with two electrons provided by NADPH via cytochrome P450 reductase (NADPH--hemoprotein reductase). Catalyzes the hydroxylation of carbon-hydrogen bonds. Hydroxylates fatty acids specifically at the omega-1 position displaying the highest catalytic activity for saturated fatty acids. May be involved in the oxidative metabolism of xenobiotics.</p>
<b>Bio-activity</b>	<p>Cytochrome c Reductase Activity: 367 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> <p>Linear with time up to: 15 min(Determined at 100 <math>\mu</math>M substrate, using a P450 concentration of 100 pmol/ml)</p> <p>Linear with P450 up to: 160 pmol/ml(Determined at 100 <math>\mu</math>M substrate, using an</p>

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incubation time of 5 min)  
 Vmax: 3.2 pmol/min/pmol CYP  
 Km: 132  $\mu$ M

**Usage** For laboratory (research) purposes only

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

**Concentration** P450 Concentration: 9.9 nmol/ml  
 Cytochrome b5 Concentration: 49.4 nmol/ml  
 Protein Concentration: 17.7 mg/ml

**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, polypeptide 1 [ *Sus scrofa* (pig) ]

**Official Symbol** CYP2E1

**Synonyms** CYP2E1; cytochrome P450, family 2, subfamily E, polypeptide 1; cytochrome P450 2E1; 4-nitrophenol 2-hydroxylase; CYP11E1; cytochrome P-450-J; cytochrome P450-J

**Gene ID** 403216

**mRNA Refseq** NM\_214421

**Protein Refseq** NP\_999586

**UniProt ID** P79383

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