Active Recombinant Human CYP2C8 Protein

Cat. No. CYP2C8-76H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human CYP2C8 protein and human CYP-reductase without tag was 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 its expression is induced by phenobarbital. The enzyme is known to metabolize many xenobiotics, including the anticonvulsive drug mephenytoin, benzo(a)pyrene, 7-ethyoxycoumarin, and the anti-cancer drug taxol. This gene is located within a cluster of cytochrome P450 genes on chromosome 10q24. Several transcript variants encoding a few different isoforms have been found for this gene.
Bio-activity	Cytochrome c Reductase Activity: 183 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 5mM magnesium chloride and an NADPH generating system [5 mM glucose 6-phosphate, 1 mM NADP+, 1 U/ml glucose 6-phosphate dehydrogenase]) Activity: Paclitaxel 6α-hydroxylase Linear with time up to: 15 min(Determined at 4 μM substrate, using a P450

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	concentration of 10 pmol/ml) Linear with P450 up to: 100 pmol/ml(Determined at 4 μM substrate, using an incubation time of 5 min) Vmax: 0.88 pmol/min/pmol CYP Km: 1.6 μM
Usage	For laboratory (research) purposes only
Storage	Store at -80 centigrade. Avoid frequent temperature changes. Thaw on ice.
Concentration	P450 Concentration: 6.2 nmol/ml Protein Concentration: 7.1 mg/ml Specific P450 Content: 873 pmol/mg protein
Storage Buffer	50 mM Tris-acetate (pH 7.6), 250 mM sucrose, 0.25 mM EDTA

GENE INFORMATION

Gene Name	CYP2C8 cytochrome P450 family 2 subfamily C member 8 [Homo sapiens (human)]
Official Symbol	CYP2C8
Synonyms	CYP2C8; cytochrome P450 family 2 subfamily C member 8; CPC8; CYPIIC8; CYP2C8DM; MP-12/MP-20; cytochrome P450 2C8; P450 form 1; cytochrome P450 IIC2; cytochrome P450 MP-12; cytochrome P450 MP-20; cytochrome P450 form 1; cytochrome P450, family 2, subfamily C, polypeptide 8; cytochrome P450, subfamily IIC (mephenytoin 4-hydroxylase), polypeptide 8; flavoprotein-linked monooxygenase; microsomal monooxygenase; s-mephenytoin 4-hydroxylase; xenobiotic monooxygenase
Gene ID	1558

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mRNA Refseq	NM_000770
Protein Refseq	NP_000761
MIM	601129
UniProt ID	P10632

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