Active Recombinant Human CYP2C9 Protein

Cat. No. CYP2C9-22H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human CYP2C9 and human CYP-reductase without tag was coexpressed in Escherichia coli. Amount: 0.5 nmol cytochrome P450
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 rifampin. The enzyme is known to metabolize many xenobiotics, including phenytoin, tolbutamide, ibuprofen and S-warfarin. Studies identifying individuals who are poor metabolizers of phenytoin and tolbutamide suggest that this gene is polymorphic. The gene is located within a cluster of cytochrome P450 genes on chromosome 10q24.
Bio-activity	Cytochrome c Reductase Activity: 84 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: Diclofenac 4'-hydroxylase Linear with time up to: 12 min (Determined at 2.5 μM substrate, using a P450

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	concentration of 10 pmol/ml) Linear with P450 up to: 25 pmol/ml (Determined at 2.5 μM substrate, using an incubation time of 5 min) Vmax: 14 pmol/min/pmol CYP Km: 3.2 μM
Usage	For laboratory (research) purposes only.
Storage	Store at -80 centigrade. Avoid frequent temperature changes. Thaw on ice.
Concentration	P450 Concentration: 1.0 nmol/ml Protein Concentration: 10.0 mg/ml Specific P450 Content: 100 pmol/mg protein
Storage Buffer	50 mM Tris-acetate (pH 7.6), 250 mM sucrose, 0.25 mM EDTA

GENE INFORMATION

Gene Name	CYP2C9 cytochrome P450 family 2 subfamily C member 9 [Homo sapiens (human)]
Official Symbol	CYP2C9
Synonyms	CYP2C9; cytochrome P450 family 2 subfamily C member 9; CPC9; CYP2C; CYP2C10; CYPIIC9; P450IIC9; cytochrome P450 2C9; cytochrome P-450 S-mephenytoin 4-hydroxylase; cytochrome P-450MP; cytochrome P450 PB-1; cytochrome P450, family 2, subfamily C, polypeptide 9; flavoprotein-linked monooxygenase; microsomal monooxygenase; xenobiotic monooxygenase; EC 1.14.14.1; EC 1.14.14.51; EC 1.14.14.52; EC 1.14.14.53
Gene ID	1559

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mRNA Refseq	NM_000771
Protein Refseq	NP_000762
MIM	601130
UniProt ID	P11712

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