

Recombinant Human CYP2C9/NADPH reductase protein

Cat. No. CYP2C9-35H Lot. No. (See product label)

SPECIFICATION

Product Overview	This is a permeabilized and stabilized dried yeast powder preparation containing recombinant human CYP2C9 and recombinant human P450 NADPH oxidoreductase co-expressed in the same preparation.
Species	Human
Source	P.pastoris
Form	Lyophilized powder
Molecular Mass	55 Kda
Characteristic	- Co-expresses human CYP2C9 and human P450 oxidoreductase (hCPR) allowing easy reconstitution of the endogenous system- Useful for all the applications as a baculosome system but more cost-effective- Easy to handle dry powder- Very stable in dry form and active in multiple buffers and solvents during long incubations- Addition of NADP+ & Glucose-6-Phosphate are not essential (but will boost T3activity)- After the reaction, the protein can be pelleted at relatively low speeds- Clean HPLC profiles for easy metabolite ID and purification- Highly controlled production process for lot-to-lot reproducibility
Notes	Centrifuge the vial prior to opening
Storage	Stable for 1 year as supplied. Store dry powder at -20 centigrade. Reconstitute in 25 mM Potassium Phosphate buffer, pH 7.7. Not recommended to be stored as solution.

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If storing as solution, aliquot and store at -80 centigrade. Avoid repeated freeze/thaw cycles and use aliquots within one month (the human CYP2C9 will lose approximately 10% activity per week when stored at -80 centigrade). Thaw aliquots rapidly at 37 centigrade and place on ice until use (thawed aliquots should be used within 4 hours).

Reconstitution 25 mM Potassium Phosphate buffer, pH 7.7

GENE INFORMATION

Gene Name CYP2C9 cytochrome P450, family 2, subfamily C, polypeptide 9 [Homo sapiens]

Official Symbol CYP2C9

Synonyms

CYP2C9; cytochrome P450, family 2, subfamily C, polypeptide 9; CYP2C10, cytochrome P450, subfamily IIC (mephenytoin 4 hydroxylase), polypeptide 9; cytochrome P450 2C9; P450IIC9; cytochrome P-450MP; cytochrome P450 PB-1; microsomal monooxygenase; xenobiotic monooxygenase; flavoprotein-linked monooxygenase; cytochrome P-450 S-mephenytoin 4-hydroxylase; CPC9; CYP2C; CYP2C10; CYP1IC9; MGC88320; MGC149605;

Gene ID 1559

mRNA Refseq NM_000771

Protein Refseq NP_000762

MIM 601130

UniProt ID P11712

Chromosome 10q24.1

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Location**Pathway**

Arachidonate Epoxygenase / Epoxide Hydrolase, organism-specific biosystem; Arachidonic acid metabolism, organism-specific biosystem; Arachidonic acid metabolism, conserved biosystem; Biological oxidations, organism-specific biosystem; Cytochrome P450 - arranged by substrate type, organism-specific biosystem; Drug metabolism - cytochrome P450, organism-specific biosystem; Drug metabolism - cytochrome P450, conserved biosystem;

Function

(R)-limonene 6-monooxygenase activity; (S)-limonene 6-monooxygenase activity; (S)-limonene 7-monooxygenase activity; caffeine oxidase activity; drug binding; electron carrier activity; heme binding; metal ion binding; monooxygenase activity; monooxygenase activity; oxidoreductase activity; oxidoreductase activity, acting on paired donors, with incorporation or reduction of molecular oxygen; steroid hydroxylase activity;

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