

Recombinant Human CYP2D6/NADPH reductase protein

Cat. No. CYP2D6-34H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	This is a permeabilized and stabilized dried yeast powder preparation containing recombinant human CYP2D6 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 CYP2D6 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 100 mM Phosphate buffer, pH 7.7. Not recommended to be stored as solution. If storing

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as solution, aliquot and store at -80 centigrade. Avoid repeated freeze/thaw cycles and use aliquots within one month (the human CYP2D6 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 100 mM Potassium Phosphate buffer, pH 7.7

GENE INFORMATION

Gene Name CYP2D6 cytochrome P450, family 2, subfamily D, polypeptide 6 [Homo sapiens]

Official Symbol CYP2D6

Synonyms

CYP2D6; cytochrome P450, family 2, subfamily D, polypeptide 6; CYP2D7AP, CYP2D7BP, CYP2D7P2, CYP2D8P2, CYP2DL1, cytochrome P450, family 2, subfamily D, polypeptide 7 pseudogene 2 , cytochrome P450, family 2, subfamily D, polypeptide 8 pseudogene 2 , cytochrome P450, subfamily II (debrisoquine, sparteine, etc., metabolising), polypeptide 7 pseudogene 2 , cytochrome P450, subfamily IID (debrisoquine, sparteine, etc., metabolising), polypeptide 8 pseudogene 2 , cytochrome P450, subfamily IID (debrisoquine, sparteine, etc., metabolizing), polypeptide 6; cytochrome P450 2D6; CPD6; CYP2D; P450 DB1; P450C2D; cytochrome P450-DB1; microsomal monooxygenase; xenobiotic monooxygenase; debrisoquine 4-hydroxylase; flavoprotein-linked monooxygenase; cytochrome P450, family 2, subfamily D, polypeptide 7 pseudogene 2; cytochrome P450, family 2, subfamily D, polypeptide 8 pseudogene 2; cytochrome P450, subfamily IID (debrisoquine, sparteine, etc., -metabolizing)-like 1; cytochrome P450, subfamily IID (debrisoquine, sparteine, etc., -metabolizing), polypeptide 6; cytochrome P450, subfamily II (debrisoquine, sparteine, etc., -metabolising), polypeptide 7 pseudogene 2; cytochrome P450, subfamily IID (debrisoquine, sparteine, etc., -metabolising), polypeptide 8 pseudogene 2; CYP2DL1; CYP2IID6; P450DB1; CYP2D7AP;

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	CYP2D7BP; CYP2D7P2; CYP2D8P2; P450-DB1; MGC120389; MGC120390;
Gene ID	1565
mRNA Refseq	NM_000106
Protein Refseq	NP_000097
MIM	124030
UniProt ID	P10635
Chromosome Location	22q13.1
Pathway	Biological oxidations, organism-specific biosystem; Codeine and morphine metabolism, 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; Fatty Acid Omega Oxidation, organism-specific biosystem; Metabolism, organism-specific biosystem;
Function	aromatase activity; drug binding; electron carrier activity; heme binding; heme binding; metal ion binding; monooxygenase activity; monooxygenase activity; oxidoreductase activity; oxidoreductase activity, acting on paired donors, with incorporation or reduction of molecular oxygen;