

Recombinant Human CYP2D6, GST-tagged

Cat. No. CYP2D6-11775H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CYP2D6 protein, fused to GST-tag, was expressed in E.coli and purified by GSH-sepharose.
Species	Human
Source	E.coli
ProteinLength	148-497a.a.
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 is known to metabolize as many as 20% of commonly prescribed drugs. Its substrates include debrisoquine, an adrenergic-blocking drug; sparteine and propafenone, both anti-arrhythmic drugs; and amitriptyline, an anti-depressant. The gene is highly polymorphic in the population; certain alleles result in the poor metabolizer phenotype, characterized by a decreased ability to metabolize the enzymes substrates. The gene is located near two cytochrome P450 pseudogenes on chromosome 22q13.1. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.
Storage	The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.
Storage Buffer	1M PBS (58mM Na ₂ HPO ₄ , 17mM NaH ₂ PO ₄ , 68mM NaCl, pH8.) added with 100mM

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GSH and 1% Triton X-100,15%glycerol.

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; CYP2D6; P450DB1; CYP2D7AP; CYP2D7BP; CYP2D7P2; CYP2D8P2; P450-DB1; MGC120389; MGC120390;

Gene ID 1565

mRNA Refseq NM_000106

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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 re