

Recombinant Human CYP2D6 Protein (P34-R497), His tagged

Cat. No. CYP2D6-0004H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human 6His-TEV-CYP2D6(P34-R497 end) Protein was expressed in E. coli.

Species Human

Source E.coli

ProteinLength P34-R497

Description

A cytochrome P450 monooxygenase involved in the metabolism of fatty acids, steroids and retinoids. Mechanistically, uses molecular oxygen inserting one oxygen atom into a substrate, and reducing the second into a water molecule, with two electrons provided by NADPH via cytochrome P450 reductase (NADPH--hemoprotein reductase). Catalyzes the epoxidation of double bonds of polyunsaturated fatty acids (PUFA). Metabolizes endocannabinoid arachidonylethanolamide (anandamide) to 20-hydroxyeicosatetraenoic acid ethanolamide (20-HETE-EA) and 8,9-, 11,12-, and 14,15-epoxyeicosatrienoic acid ethanolamides (EpETrE-EAs), potentially modulating endocannabinoid system signaling. Catalyzes the hydroxylation of carbon-hydrogen bonds. Metabolizes cholesterol toward 25-hydroxycholesterol, a physiological regulator of cellular cholesterol homeostasis. Catalyzes the oxidative transformations of all-trans retinol to all-trans retinal, a precursor for the active form all-trans-retinoic acid. Also involved in the oxidative metabolism of drugs such as antiarrhythmics, adrenoceptor antagonists, and tricyclic antidepressants.

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Form	Liquid
Endotoxin	< 0.01 EU per µg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

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

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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; CYP2D7BP; CYP2D7P2; CYP2D8P2; P450-DB1; MGC120389; MGC120390;

Gene ID 1565

mRNA Refseq NM_000106

Protein Refseq NP_000097

MIM 124030

UniProt ID P10635

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