Active Recombinant Human CYP2B6 Protein

Cat. No. CYP2B6-22H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human CYP2B6 and human CYP-reductase without tag was coexpressed in Escherichia coli, supplemented with purified human cytochrome b5. Amount: 0.5 nmol cytochrome P450
Species	Human
Source	E.coli
Description	This gene, CYP2B6, 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 phenobarbital. The enzyme is known to metabolize some xenobiotics, such as the anti-cancer drugs cyclophosphamide and ifosphamide. Transcript variants for this gene have been described; however, it has not been resolved whether these transcripts are in fact produced by this gene or by a closely related pseudogene, CYP2B7. Both the gene and the pseudogene are located in the middle of a CYP2A pseudogene found in a large cluster of cytochrome P450 genes from the CYP2A, CYP2B and CYP2F subfamilies on chromosome 19q.
Bio-activity	Cytochrome c Reductase Activity: 77 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,

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	1 mM NADP+, 1 U/ml glucose 6-phosphate dehydrogenase]) Activity: Diazepam N-demethylase Linear with time up to: 15 min(Determined at 100 μM substrate, using a P450 concentration of 50 pmol/ml) Linear with P450 up to: 40 pmol/ml(Determined at 100 μM substrate, using an incubation time of 5 min) Vmax: 1.5 pmol/min/pmol CYP Km: 174 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 Cytochrome b5 Concentration: 5.0 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	CYP2B6 cytochrome P450 family 2 subfamily B member 6 [Homo sapiens (human)]
Official Symbol	CYP2B6
Synonyms	CYP2B6; cytochrome P450 family 2 subfamily B member 6; CPB6; EFVM; IIB1; P450; CYP2B; CYP2B7; CYP2B7P; CYPIIB6; cytochrome P450 2B6; 1,4-cineole 2-exo-monooxygenase; cytochrome P450 IIB1; cytochrome P450, family 2, subfamily B, polypeptide 6; cytochrome P450, subfamily IIB (phenobarbital-inducible), polypeptide 6; EC 1.14.14.1

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Gene ID	1555
mRNA Refseq	NM_000767
Protein Refseq	NP_000758
MIM	123930
UniProt ID	P20813

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