

Active Recombinant Human CYP2D6 protein, His-tagged

Cat. No. CYP2D6-7965H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human CYP2D6 protein(P10635)(236-472 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	236-472 aa
Form	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Bio-activity	Cytochrome P450 2D6 (CYP2D6), a member of the cytochrome P450 mixed-function oxidase system, is one of the most important enzymes involved in the metabolism of xenobiotics in the body. In particular, CYP2D6 is responsible for the metabolism and elimination of approximately 25% of clinically used drugs, via the addition or removal of certain functional groups-specifically, hydroxylation, demethylation, and dealkylation. CYP2D6 is primarily expressed in the liver. It is also highly expressed in areas of the central nervous system, including the substantia nigra. This enzyme also metabolizes several endogenous substances, such as hydroxytryptamines, neurosteroids, and both m-tyramine and p-tyramine which CYP2D6 metabolizes into dopamine in the brain and liver. Besides, Cytochrome P450 Reductase (CPR) has been identified as an interactor of CYP2D6, thus a binding ELISA assay was conducted to detect the interaction of recombinant human VDR and recombinant

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human CPR. Briefly, CYP2D6 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to CPR-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-CYP2D6 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50μ stop solution to the wells and read at 450nm immediately. The binding activity of CYP2D6 and CPR was shown, and this effect was in a dose dependent manner.

Molecular Mass	28.1kDa
Endotoxin	<1.0EU per 1μg (determined by the LAL method).
Purity	> 95%
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

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,

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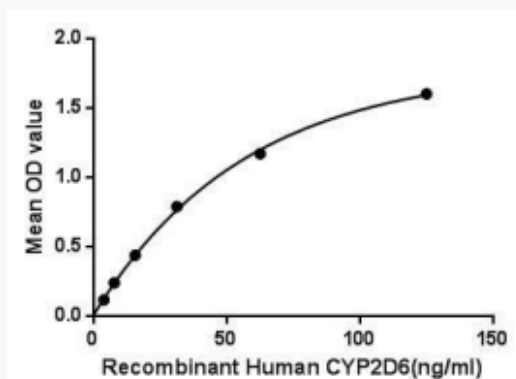
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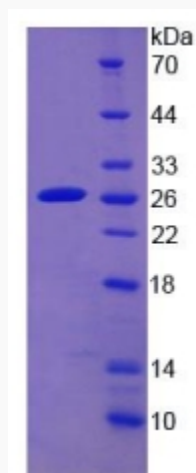
polypeptide 8 pseudogene 2 , cytochrome P450, subfamily II (debrisoquine, sparteine, etc., metabolising), polypeptide 7 pseudogene 2 , cytochrome P450, subfamily IID (debrisoquine, sparteine, etc., metabolising), polypeptide 8 pseudogene 2 , cytochrome P450, subfamily IID (debrisoquine, sparteine, etc., 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; CYPIID6; 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

Activity



SDS-PAGE



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