

Active Recombinant Human CYP46A1 Protein

Cat. No. CYP46A1-03H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human CYP46A1 and human CYP-reductase without tag was coexpressed in Escherichia coli. Amount: 0.5 nmol cytochrome P450
Species	Human
Source	E.coli
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 endoplasmic reticulum protein is expressed in the brain, where it converts cholesterol to 24S-hydroxycholesterol. While cholesterol cannot pass the blood-brain barrier, 24S-hydroxycholesterol can be secreted in the brain into the circulation to be returned to the liver for catabolism.
Bio-activity	Cytochrome c Reductase Activity: 91 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, 1 mM NADP+, 1 U/ml glucose 6-phosphate dehydrogenase]) Activity: Testosterone 16β-hydroxylase Linear with time up to: 15 min(Determined at 15 μM substrate, using a P450 concentration of 75 pmol/ml)

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	Linear with P450 up to: 100 pmol/ml(Determined at 15 μM substrate, using an incubation time of 5 min) Vmax: 1.1 pmol/min/pmol CYP Km: 15 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 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	CYP46A1 cytochrome P450 family 46 subfamily A member 1 [Homo sapiens (human)]
Official Symbol	CYP46A1
Synonyms	CYP46A1; cytochrome P450 family 46 subfamily A member 1; CP46; CYP46; cholesterol 24-hydroxylase; CH24H; cholesterol 24-monooxygenase; cholesterol 24S-hydroxylase; cytochrome P450 46A1; cytochrome P450, family 46, subfamily A, polypeptide 1; cytochrome P450, subfamily 46 (cholesterol 24-hydroxylase); EC 1.14.14.25
Gene ID	10858
mRNA Refseq	NM_006668

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Protein Refseq	NP_006659
MIM	604087
UniProt ID	Q9Y6A2

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