

Active Recombinant Human CYP46A1 Protein

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

SPECIFICATION

Product Overview	<p>Recombinant human CYP46A1 and human CYP-reductase without tag was coexpressed in Escherichia coli.</p> <p>Amount: 0.5 nmol cytochrome P450</p>
Species	Human
Source	E.coli
Description	<p>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.</p> <p>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.</p>
Bio-activity	<p>Cytochrome c Reductase Activity: 91 nmol/min/mg protein</p> <p>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])</p> <p>Activity: Testosterone 16β-hydroxylase</p> <p>Linear with time up to: 15 min(Determined at 15 μM substrate, using a P450 concentration of 75 pmol/ml)</p>

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	<p>Linear with P450 up to: 100 pmol/ml(Determined at 15 μM substrate, using an incubation time of 5 min)</p> <p>Vmax: 1.1 pmol/min/pmol CYP</p> <p>Km: 15 μM</p>
Usage	For laboratory (research) purposes only.
Storage	Store at -80 centigrade. Avoid frequent temperature changes. Thaw on ice.
Concentration	<p>P450 Concentration: 1.0 nmol/ml</p> <p>Protein Concentration: 10.0 mg/ml</p> <p>Specific P450 Content: 100 pmol/mg protein</p>
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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