

Active Recombinant Human CYP2A13 Protein

Cat. No. CYP2A13-72H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human CYP2A13 protein and CYP-reductase without tag were coexpressed in E. coli.
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 protein localizes to the endoplasmic reticulum. Although its endogenous substrate has not been determined, it is known to metabolize 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanol, a major nitrosamine specific to tobacco. This gene is part of a large cluster of cytochrome P450 genes from the CYP2A, CYP2B and CYP2F subfamilies on chromosome 19q.
Bio-activity	Cytochrome c Reductase Activity: 1137 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: Coumarin 7-hydroxylase Linear with time up to: 6 min(Determined at 0.4 μM substrate, using a P450 concentration of 20 pmol/ml)

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	Linear with P450 up to: 2 pmol/ml(Determined at 0.4 μM substrate, using an incubation time of 5 min) Vmax: 1.7 pmol/min/pmol CYP Km: 0.30 μM
Usage	For laboratory (research) purposes only
Storage	Store at -80 centigrade. Avoid frequent temperature changes. Thaw on ice.
Concentration	P450 Concentration: 5.5 nmol/ml Protein Concentration: 16.0 mg/ml Specific P450 Content: 344 pmol/mg protein
Storage Buffer	50 mM Tris-acetate (pH 7.6), 250 mM sucrose, 0.25 mM EDTA
GENE INFORMATION	
Gene Name	CYP2A13 cytochrome P450 family 2 subfamily A member 13 [Homo sapiens (human)]
Official Symbol	CYP2A13
Synonyms	CYP2A13; cytochrome P450 family 2 subfamily A member 13; CPAD; CYP2A; CYP11A13; cytochrome P450 2A13; cytochrome P450, family 2, subfamily A, polypeptide 13; cytochrome P450, subfamily IIA (phenobarbital-inducible), polypeptide 13
Gene ID	1553
mRNA Refseq	NM_000766

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Protein Refseq	NP_000757
MIM	608055
UniProt ID	Q16696

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