

Active Recombinant Dog CYP1A2 Protein

Cat. No. CYP1A2-119D Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant dog CYP1A2 protein and human CYP-reductase without tag were coexpressed in E. coli.
Species	Dog
Source	E.coli
Description	Cytochrome P450 1A2 (CYP1A2) is one of the CYP450 mixed-function oxidase system that is of clinical importance due to the large number of drug interactions associated with its induction and inhibition.
Bio-activity	<p>Cytochrome c Reductase Activity: 235 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: 7-ethoxycoumarin O-deethylase</p> <p>Linear with time up to: 10 min(Determined at 1 μM substrate, using a P450 concentration of 2.5 pmol/ml)</p> <p>Linear with P450 up to: 10 pmol/ml(Determined at 1 μM substrate, using an incubation time of 5 min)</p> <p>Vmax: 1.3 pmol/min/pmol CYP</p> <p>Km: 1.1 μM</p>

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Usage	For laboratory (research) purposes only
Storage	Store at -80 centigrade. Avoid frequent temperature changes. Thaw on ice.
Concentration	P450 Concentration: 12.2 nmol/ml Protein Concentration: 10.0 mg/ml Specific P450 Content: 1220 pmol/mg protein
Storage Buffer	50 mM Tris-acetate (pH 7.6), 250 mM sucrose, 0.25 mM EDTA

GENE INFORMATION

Gene Name	CYP1A2 cytochrome P450 family 1 subfamily A member 2 [<i>Canis lupus familiaris</i> (dog)]
Official Symbol	CYP1A2
Synonyms	CYP1A2; cytochrome P450 family 1 subfamily A member 2; DAH2; CYPIA2; cytochrome P450 1A2; Cholesterol 25-hydroxylase; Cytochrome P450-D2; Cytochrome-P450-1A2; cytochrome P450, family 1, subfamily A, polypeptide 2; hydroperoxy icosatetraenoate dehydratase
Gene ID	494010
mRNA Refseq	NM_001008720
Protein Refseq	NP_001008720
UniProt ID	Q5R2U2

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