

Recombinant Human CYP1A2

Cat. No. CYP1A2-27559TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment of Human Cytochrome P450 1A2 with N terminal proprietary tag, 36.63kDa.
Species	Human
Source	Wheat Germ
ProteinLength	100 amino acids
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. The protein encoded by this gene localizes to the endoplasmic reticulum and its expression is induced by some polycyclic aromatic hydrocarbons (PAHs), some of which are found in cigarette smoke. The enzymes endogenous substrate is unknown; however, it is able to metabolize some PAHs to carcinogenic intermediates. Other xenobiotic substrates for this enzyme include caffeine, aflatoxin B1, and acetaminophen. The transcript from this gene contains four Alu sequences flanked by direct repeats in the 3 untranslated region.
Molecular Weight	36.630kDa inclusive of tags
Tissue specificity	Liver.
Form	Liquid

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Purity	Proprietary Purification
Storage buffer	pH: 8.00 Constituents: 0.3% Glutathione, 0.79% Tris HCl
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	ESSDEMLSLVKNTHEFVETASSGNPLDFFPILRYLPNPALQRFKAFNQRFLWFLQKT VQEHYQDFDKNSVRDITGALFKHKKGPRASGNLIPQEKIVNL
Sequence Similarities	Belongs to the cytochrome P450 family.

GENE INFORMATION

Gene Name	CYP1A2 cytochrome P450, family 1, subfamily A, polypeptide 2 [Homo sapiens]
Official Symbol	CYP1A2
Synonyms	CYP1A2; cytochrome P450, family 1, subfamily A, polypeptide 2; cytochrome P450, subfamily I (aromatic compound inducible), polypeptide 2; cytochrome P450 1A2; CP12; P3 450;
Gene ID	1544
mRNA Refseq	NM_000761
Protein Refseq	NP_000752
Uniprot ID	P05177
Chromosome	15q24.1

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Location	
Pathway	Aromatic amines can be N-hydroxylated or N-dealkylated by CYP1A2, organism-specific biosystem; Biological oxidations, organism-specific biosystem; Caffeine metabolism, organism-specific biosystem; Caffeine metabolism, conserved biosystem; Cytochrome P450 - arranged by substrate type, organism-specific biosystem;
Function	aromatase activity; caffeine oxidase activity; demethylase activity; electron carrier activity; enzyme binding;

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