

# Recombinant Human CYP1A2

**Cat. No.** CYP1A2-551H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |  |
|-------------------------|--|
| <b>Product Overview</b> | Recombinant Human Cytochrome P450 1A2 Isozyme Microsomes, with P450 Reductase and cytochrome b5 was expressed in baculovirus infected insect cells. Microsomes containing recombinant human CYP1A2, recombinant rabbit NADPH-P450 reductase, and cytochrome b5.  |
| <b>Species</b>          | Human  |
| <b>Source</b>           | Insect Cells   |
| <b>Description</b>      | 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 enzyme's 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. |
| <b>Form</b>             | Solution in 100 mM potassium phosphate buffer, pH 7.4.   |
| <b>Applications</b>     | Human cytochrome P450 has been used in a study to investigate non-viral environmental risk factors for nasopharyngeal carcinoma. Human cytochrome P450   |

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has also been used in a study to investigate the dynamics and hydration of the active sites of mammalian cytochromes.

**Storage**                      ?70°C

## GENE INFORMATION

**Gene Name**                      CYP1A2 cytochrome P450, family 1, subfamily A, polypeptide 2 [ Homo sapiens (human) ]

**Official Symbol**                      CYP1A2

**Synonyms**                      CYP1A2; CP12; P3-450; P450(PA); cytochrome P450, family 1, subfamily A, polypeptide 2; cytochrome P450 1A2; CYPIA2; P450 form 4; cytochrome P450 4; cytochrome P(3)450; cytochrome P450-P3; dioxin-inducible P3-450; microsomal monooxygenase; xenobiotic monooxygenase; aryl hydrocarbon hydroxylase; flavoprotein-linked monooxygenase; cytochrome P450, subfamily I (aromatic compound-inducible), polypeptide 2; NP\_000752.2; EC 1.14.14.1

**Gene ID**                                      1544

**mRNA Refseq**                      NM\_000761

**Protein Refseq**                      NP\_000752

**MIM**    124060

**UniProt ID**                                      P05177

**Chromosome Location**                      15q24.1

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|----------------|---|
| <b>Pathway</b> | Aflatoxin B1 metabolism; Biological oxidations; Caffeine metabolism |
|----------------|---|

|                 |  |
|-----------------|--|
| <b>Function</b> | aromatase activity; heme binding; iron ion binding |
|-----------------|--|

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