

CYP1A2 Polyclonal Antibody

Catalog No: YT1192

Reactivity: Human; Mouse; Rat

Applications: IHC;IF;ELISA

Target: CYP1A2

Fields: >>Steroid hormone biosynthesis;>>Caffeine metabolism;>>Tryptophan

metabolism;>>Linoleic acid metabolism;>>Retinol metabolism;>>Metabolism of

xenobiotics by cytochrome P450;>>Drug metabolism - cytochrome P450;>>Metabolic pathways;>>Chemical carcinogenesis - DNA adducts;>>Chemical carcinogenesis - receptor activation;>>Chemical

carcinogenesis - reactive oxygen species

Gene Name: CYP1A2

Protein Name: Cytochrome P450 1A2

P05177

P00186

Human Gene Id: 1544

Human Swiss Prot

No:

Mouse Gene Id: 13077

Mouse Swiss Prot

No:

Rat Gene Id: 24297

Rat Swiss Prot No: P04799

Immunogen: The antiserum was produced against synthesized peptide derived from human

Cytochrome P450 1A2. AA range:331-380

Specificity: CYP1A2 Polyclonal Antibody detects endogenous levels of CYP1A2 protein.

Formulation : Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Polyclonal, Rabbit, IgG

Dilution : IHC 1:100 - 1:300. ELISA: 1:10000.. IF 1:50-200

Purification: The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight: 58kD

Cell Pathway: Caffeine metabolism;Tryptophan metabolism;Linoleic acid metabolism;Retinol

metabolism; Metabolism of xenobiotics by cytochrome P450; Drug metabolism;

Background: 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

The transcript from this gene contains four Alu sequences flanked by direct repeats in the 3' untranslated region. [provided by RefSeq, Jul 2008],

substrates for this enzyme include caffeine, aflatoxin B1, and acetaminophen.

Function: catalytic activity:RH + reduced flavoprotein + O(2) = ROH + oxidized

flavoprotein + H(2)O.,cofactor:Heme group.,function:Cytochromes P450 are a group of heme-thiolate monooxygenases. In liver microsomes, this enzyme is involved in an NADPH-dependent electron transport pathway. It oxidizes a variety

of structurally unrelated compounds, including steroids, fatty acids, and

xenobiotics. Most active in catalyzing 2-hydroxylation. Caffeine is metabolized primarily by cytochrome CYP1A2 in the liver through an initial N3-demethylation. Also acts in the metabolism of aflatoxin B1 and acetaminophen. Participates in the bioactivation of carcinogenic aromatic and heterocyclic amines. Catalizes the

N-hydroxylation of heterocyclic amines and the O-deethylation of

phenacetin., induction: By nicotine, omeprazole, phenobarbital, primidone and

rifampicin.,online information:CYP1A2 alleles,polymorphism:The

Subcellular End

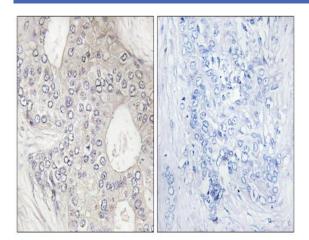
Endoplasmic reticulum membrane; Peripheral membrane protein. Microsome

membrane ; Peripheral membrane protein.

Expression : Liver.



Products Images



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using Cytochrome P450 1A2 Antibody. The picture on the right is blocked with the synthesized peptide.