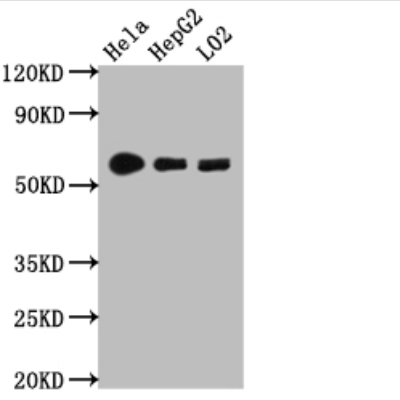
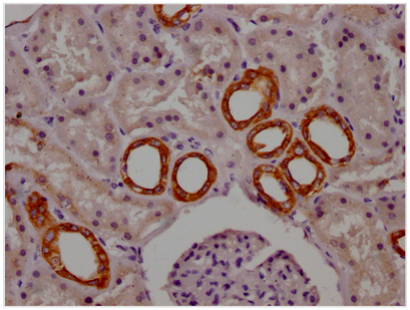
CYP1A2 Antibody

Product Code	CSB-RA178519A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P05177
Immunogen	A synthesized peptide derived from human Cytochrome P450 1A2
Species Reactivity	Human
Tested Applications	ELISA, WB, IHC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200
Relevance	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.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Cancer; Cardiovascular; Metabolism; Signal transduction
Gene Names	CYP1A2
Accession NO.	8B2

Image



Western Blot
Positive WB detected in: Hela whole cell lysate, HepG2 whole cell lysate, L02 whole cell lysate
All lanes: CYP1A2 antibody at 1:1000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 59 kDa
Observed band size: 59 kDa



IHC image of CSB-RA178519A0HU diluted at 1:100 and staining in paraffin-embedded human kidney tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

Description

The cytochrome P450 enzyme CYP1A2 is abundantly expressed in the liver and functions primarily to mediate the rate-limiting step in the metabolism of many drugs including theophylline, clozapine, and tacrine. This enzyme also biotransforms procarcinogens such as food-derived heterocyclic and aromatic mutagens, N-heterocyclics found in tobacco smoke, and difuranocoumarins to reactive carcinogens, as well as endogenous substances. CYP1A2 activity is highly variable and a number of environmental, non-genetic, and genetic as well as epigenetic factors have been shown to play a role.

The recombinant CYP1A2 antibody is a monoclonal antibody molecule expressed by using recombinant DNA and protein engineering technology to clone the genes encoding the CYP1A2 antibody into a plasma vector and then by transfecting the vector clone into the appropriate recipient mammalian cells for production. It was purified using Affinity-chromatography. And it shows reactivity with CYP1A2 protein from Human. This recombinant CYP1A2 antibody can be used in the ELISA, WB, IHC.