

CYP3A4 Polyclonal Antibody

Catalog No :	YT1228
Reactivity :	Human;Rat;Mouse;
Applications :	WB;IHC;IF;ELISA
Target :	CYP3A4
Fields :	>>Steroid hormone biosynthesis;>>Linoleic acid metabolism;>>Retinol metabolism;>>Metabolism of xenobiotics by cytochrome P450;>>Drug metabolism - cytochrome P450;>>Drug metabolism - other enzymes;>>Metabolic pathways;>>Bile secretion;>>Chemical carcinogenesis - DNA adducts;>>Chemical carcinogenesis - receptor activation
Gene Name :	CYP3A4
Protein Name :	Cytochrome P450 3A4
Human Gene Id :	1576
Human Swiss Prot No :	P08684
Immunogen :	The antiserum was produced against synthesized peptide derived from human Cytochrome P450 3A4. AA range:91-140
Specificity :	CYP3A4 Polyclonal Antibody detects endogenous levels of CYP3A4 protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:5000.. 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)

Observed Band : 57kD

Cell Pathway : Steroid hormone biosynthesis;Linoleic acid metabolism;Retinol metabolism;Metabolism of xenobiotics by cytochrome P450;Drug metabolism;Drug metabolism;

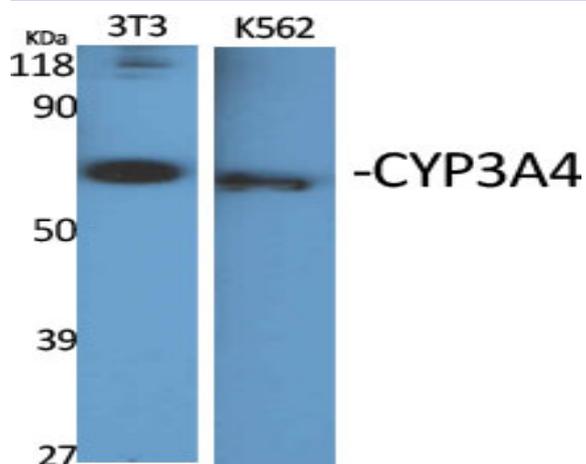
Background : This gene encodes a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases that catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. This protein localizes to the endoplasmic reticulum and its expression is induced by glucocorticoids and some pharmacological agents. This enzyme is involved in the metabolism of approximately half the drugs in use today, including acetaminophen, codeine, cyclosporin A, diazepam and erythromycin. The enzyme also metabolizes some steroids and carcinogens. This gene is part of a cluster of cytochrome P450 genes on chromosome 7q21.1. Previously another CYP3A gene, CYP3A3, was thought to exist; however, it is now thought that this sequence represents a transcript variant of CYP3A4. Alternatively spliced transcript variants encoding different isoforms

Function : catalytic activity:Albendazole + NADPH + O(2) = albendazole S-oxide + NADP(+) + H(2)O.,catalytic activity:Lithocholate + NADPH + O(2) = hyodeoxycholate + NADP(+) + H(2)O.,catalytic activity:Quinine + NADPH + O(2) = 3-hydroxyquinine + NADP(+) + H(2)O.,catalytic activity:Taurochenodeoxycholate + NADPH + O(2) = taurohyocholate + NADP(+) + 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 performs a variety of oxidation reactions (e.g. caffeine 8-oxidation, omeprazole sulphoxidation, midazolam 1'-hydroxylation and midazolam 4-hydroxylation) of structurally unrelated compounds, including steroids, fatty acids, and xenobiotics. The enzyme also hydroxylates etoposide.,induction:By glucocorticoids. Also induced to high levels in liver and other tissue

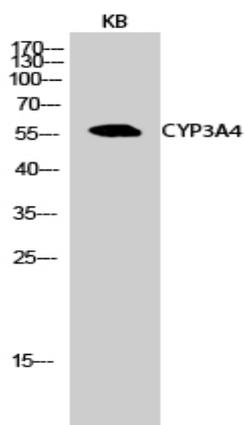
Subcellular Location : Endoplasmic reticulum membrane; Single-pass membrane protein. Microsome membrane ; Single-pass membrane protein.

Expression : Expressed in prostate and liver. According to some authors, it is not expressed in brain (PubMed:19094056). According to others, weak levels of expression are measured in some brain locations (PubMed:19359404 and PubMed:18545703). Also expressed in epithelium of the small intestine and large intestine, bile duct, nasal mucosa, kidney, adrenal cortex, epithelium of the gastric mucosa with intestinal metaplasia, gallbladder, intercalated ducts of the pancreas, chief cells of the parathyroid and the corpus luteum of the ovary (at protein level).

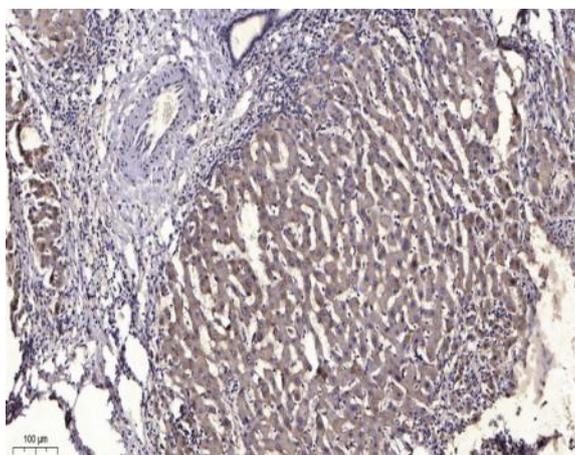
Products Images



Western Blot analysis of various cells using CYP3A4 Polyclonal Antibody diluted at 1:1000



Western Blot analysis of KB cells using CYP3A4 Polyclonal Antibody diluted at 1:1000



Immunohistochemical analysis of paraffin-embedded human liver cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).