Datasheet for ABIN4886557

anti-CYP3A4 antibody (Middle Region)

2 Images

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Overview

Quantity:	100 µg
Target:	CYP3A4
Binding Specificity:	AA 237-277, Middle Region
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CYP3A4 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Purpose:	Anti-Cytochrome P450 3A4/CYP3A4 Antibody Picoband®
Immunogen:	A synthetic peptide corresponding to a sequence in the middle region of human CYP3A4.
Sequence:	NICVFPREVT NFLRKSVKRM KESRLEDTQK HRVDFLQLMI D
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins
Characteristics:	Anti-Cytochrome 3A4/CYP3A4 Antibody Picoband® (ABIN4886557). Tested in IHC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.

Product Details

Purification:	Immunogen affinity purified.

Target Details

Target:	CYP3A4
Alternative Name:	CYP3A4 (CYP3A4 Products)
Background:	Synonyms: Cytochrome P450 3A4,1.14.13.-,1,8-cineole 2-exo-monooxygenase,1.14.13.157,Albendazole monooxygenase,1.14.13.32,Albendazole sulfoxidase,CYPIIIA3,CYPIIIA4,Cholesterol 25-hydroxylase ,1.14.14.1 ,Cytochrome P450 3A3,Cytochrome P450 HLp,Cytochrome P450 NF-25,Cytochrome P450-PCN1,Nifedipine oxidase,Quinine 3-monooxygenase,1.14.13.67,Taurochenodeoxycholate 6-alpha-hydroxylase,1.14.13.97,CYP3A4,CYP3A3, Tissue Specificity: 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). . Background: Cytochrome P450 3A4 (abbreviated CYP3A4), is an important enzyme in the body, mainly found in the liver and in the intestine. 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 have been identified.
Molecular Weight:	57 kDa
Gene ID:	1576
UniProt:	P08684

Target Details

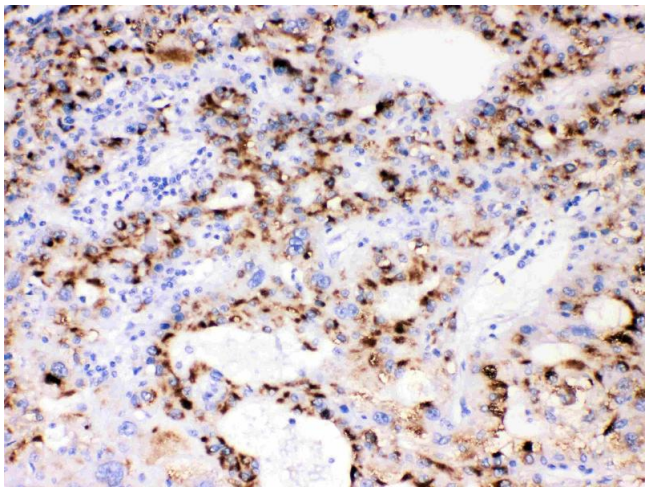
Pathways:	Steroid Hormone Biosynthesis

Application Details

Application Notes:	Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/mL, Human Western blot, 0.1-0.5 µg/mL, Human 1. Hashimoto H, Toide K, Kitamura R, Fujita M, Tagawa S, Itoh S, Kamataki T (December 1993). "Gene structure of CYP3A4, an adult-specific form of cytochrome P450 in human livers, and its transcriptional control". Eur. J. Biochem. 218 (2): 585-95. 2. Inoue K, Inazawa J, Nakagawa H, Shimada T, Yamazaki H, Guengerich FP, Abe T (June 1992). "Assignment of the human cytochrome P-450 nifedipine oxidase gene (CYP3A4) to chromosome 7 at band q22.1 by fluorescence in situ hybridization". Jpn. J. Hum. Genet. 37 (2): 133-8.
Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freezing and thawing.
Storage:	4 °C,-20 °C
Storage Comment:	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.



Immunohistochemistry

Image 1. CYP3A4 was detected in paraffin-embedded sections of human liver cancer tissues using rabbit anti-CYP3A4 Antigen Affinity purified polyclonal antibody (Catalog #) at 1 µg/mL. The immunohistochemical section was developed using SABC method (Catalog # SA1022).

Western Blotting

Image 2. Western blot analysis of CYP3A4 expression in HELA whole cell lysates (Lane 1). CYP3A4 at 57KD was detected using rabbit anti- CYP3A4 Antigen Affinity purified polyclonal antibody (Catalog #) at 0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method (Catalog # EK1002).