

Anti-CYP3A4 Antibody (2B571)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	2B571
Purification:	Affinity-chromatography

Applications

Verified Activity:	1. IHC image of TMAH-00329 diluted at 1:100 and staining in paraffin-embedded human liver tissue performed on a Leica Bond™ 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.
	2. IHC image of TMAH-00329 diluted at 1:100 and staining in paraffin-embedded human liver cancer performed on a Leica Bond™ 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.
Application:	ELISA,IHC
Recommended	IHC:1:50-1:200.

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthetic peptide: Human Cytochrome P450 3A4
Antigen Species:	Human
Gene ID:	1576
Uniprot ID:	P08684
Synonyms:	Albendazole sulfoxidase;sulfoxide-forming;Quinine 3-monooxygenase;CYPIIIA3;Cytochrome P450 3A4;CYP3A3;Cytochrome P450 3A3;Nifedipine oxidase;CYPIIIA4;Cytochrome P450 NF-25; Albendazole monooxygenase;Cholesterol 25-hydroxylase;Cytochrome P450-PCN1;1,8-cineole 2-exo-monooxygenase;Cytochrome P450 HLP;1,4-cineole 2-exo-monooxygenase
Biology Area:	Cancer, Cardiovascular, Metabolism, Signal transduction

Research Background

A cytochrome P450 monooxygenase involved in the metabolism of sterols, steroid hormones, retinoids and fatty

acids. Mechanistically, uses molecular oxygen inserting one oxygen atom into a substrate, and reducing the second into a water molecule, with two electrons provided by NADPH via cytochrome P450 reductase (NADPH--hemoprotein reductase). Catalyzes the hydroxylation of carbon-hydrogen bonds. Exhibits high catalytic activity for the formation of hydroxyestrogens from estrone (E1) and 17beta-estradiol (E2), namely 2-hydroxy E1 and E2, as well as D-ring hydroxylated E1 and E2 at the C-16 position. Plays a role in the metabolism of androgens, particularly in oxidative deactivation of testosterone. Metabolizes testosterone to less biologically active 2beta- and 6beta-hydroxytestosterones. Contributes to the formation of hydroxycholesterols (oxysterols), particularly A-ring hydroxylated cholesterol at the C-4beta position, and side chain hydroxylated cholesterol at the C-25 position, likely contributing to cholesterol degradation and bile acid biosynthesis. Catalyzes bisallylic hydroxylation of polyunsaturated fatty acids (PUFA). Catalyzes the epoxidation of double bonds of PUFA with a preference for the last double bond. Metabolizes endocannabinoid arachidonylethanolamide (anandamide) to 8,9-, 11,12-, and 14,15-epoxyeicosatrienoic acid ethanolamides (EpETE-EAs), potentially modulating endocannabinoid system signaling. Plays a role in the metabolism of retinoids. Displays high catalytic activity for oxidation of all-trans-retinol to all-trans-retinal, a rate-limiting step for the biosynthesis of all-trans-retinoic acid (atRA). Further metabolizes atRA toward 4-hydroxyretinoate and may play a role in hepatic atRA clearance. Responsible for oxidative metabolism of xenobiotics. Acts as a 2-exo-monooxygenase for plant lipid 1,8-cineole (eucalyptol). Metabolizes the majority of the administered drugs. Catalyzes sulfoxidation of the anthelmintics albendazole and fenbendazole. Hydroxylates antimalarial drug quinine. Acts as a 1,4-cineole 2-exo-monooxygenase. Also involved in vitamin D catabolism and calcium homeostasis. Catalyzes the inactivation of the active hormone calcitriol (1-alpha,25-dihydroxyvitamin D(3)).

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