

DATASHEET

Cytochrome P450 3A4/5 Rabbit Polyclonal Antibody

CAT. NO. APA06887

KEY FEATURES

Target	Cytochrome P450 3A4/5	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat	Clonality	Polyclonal
Applications	WB, IHC, IF/ICC	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.		Storage at -20°C

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 hydroxysterogens 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 .

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:100 - 1:200
IF/ICC	1:100 - 1:500

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Rabbit polyclonal antibody to Cytochrome P450 3A4/5
Specificity	Recognizes endogenous levels of Cytochrome P450 3A4/5 protein.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Cytochrome P450 3A4/5. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 57 kD; Observed: 57 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	CYP3A4; CYP3A3; Cytochrome P450 3A4; 1,8-cineole 2-exo-monooxygenase; Albendazole monooxygenase; Albendazole sulfoxidase; CYP11A3; CYP11A4; Cytochrome P450 3A3; Cytochrome P450 HLP; Cytochrome P450 NF-25; Cytochrome P450-PCN1; Nifedipine oxidase; Quinine 3-monooxygenase; Taurochenodeoxycholate 6-alpha-hydroxylase; CYP3A5; Cytochrome P450 3A5; CYP11A5; Cytochrome P450 HLP2; Cytochrome P450-PCN3
Gene Symbol	CYP3A4; CYP3A5
Entrez Gene	1576; 1577(Human)
SwissProt	P08684; P20815(Human)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arex.bio or your local distributor.

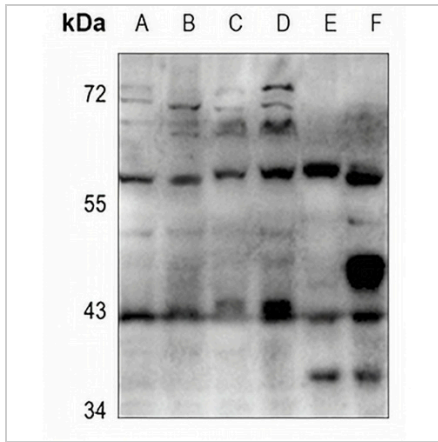
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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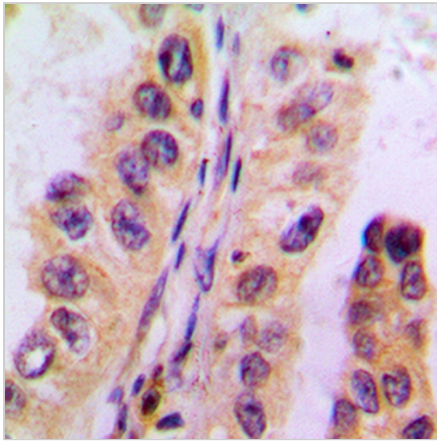
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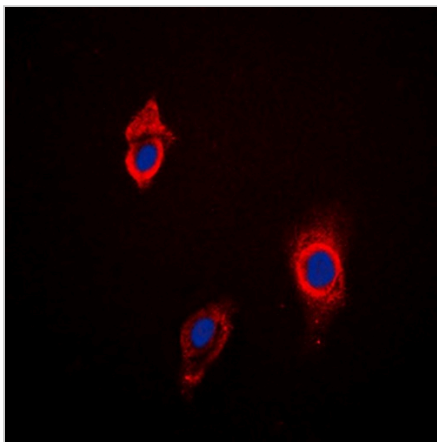
DATA



Western blot analysis of Cytochrome P450 3A4/5 expression in HCT116 (A), PC3 (B), LO2 (C), HepG2 (D), mouse liver (E), rat liver (F) whole cell lysates. (Predicted band size: 57 kD; Observed band size: 57 kD)



Immunohistochemical analysis of Cytochrome P450 3A4/5 staining in human liver cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Cytochrome P450 3A4/5 staining in HepG2 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.