

Rabbit anti-Human CYP3A4 Polyclonal Antibody | anti-CYP3A4 antibody

CYP3A4 Antibody (Center)

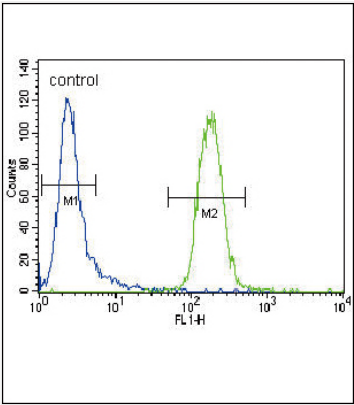
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA284685	Rabbit	Human	Flow Cytometry, Functional Assay, Immunohistochemistry, ELISA, Western Blot

PRODUCT SYNONYMS

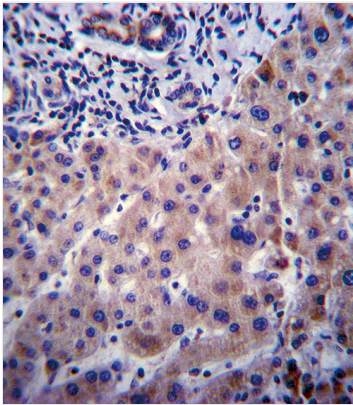
CYP3A4; Polyclonal Antibody; CYP3A4 Antibody (Center); Cytochrome P450 3A4; 11413-; 8-cineole 2-exo-monooxygenase; Albendazole monooxygenase; Albendazole sulfoxidase; CYP11A3; CYP11A4; Cytochrome P450 3A3; Cytochrome P450 HLP; Cytochrome P450 NF-25; Cytochrome P450-PCN1; Nifedipine oxidase; Quinine 3-monooxygenase; Taurochenodeoxycholate 6-alpha-hydroxylase; CYP3A3; anti-CYP3A4 antibody

PRODUCT SPECIFICATIONS

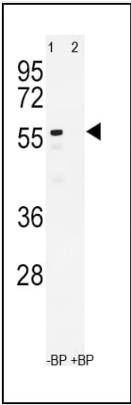
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit Ig
Specificity	This CYP3A4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 228-255 amino acids from the Central region of human CYP3A4.
Purity/Purification	Purified Rabbit Polyclonal Antibody (Pab)
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Sequence Positions	228-255
Sequence Length	502
Applicable Applications for anti-CYP3A4 antibody	FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), ELISA, WB (Western Blot)
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 sulfoxidation, midazolam 1'-hydroxylation and midazolam 4-hydroxylation) of structurally unrelated compounds, including steroids, fatty acids, and xenobiotics. Acts as a 1,8-cineole 2-exo-monooxygenase. The enzyme also hydroxylates etoposide (PubMed:). Catalyzes 4-beta-hydroxylation of cholesterol. May catalyze 25-hydroxylation of cholesterol in vitro (PubMed:).
Cellular Location	Endoplasmic reticulum membrane; Single-pass membrane protein. Microsome membrane; Single-pass membrane protein
Tissue Location	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).
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.



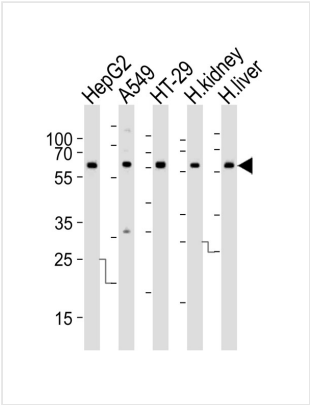
FCM/FACS (Flow Cytometry)
CYP3A4 Antibody (Center) flow cytometric analysis of CEM cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



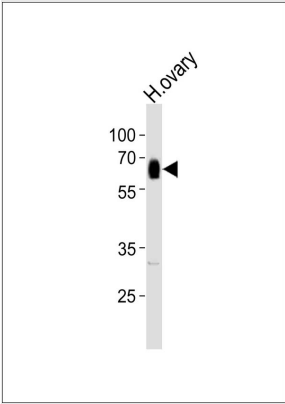
IHC (Immunohistochemistry)
CYP3A4 Antibody (Center) immunohistochemistry analysis in formalin fixed and paraffin embedded human liver tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of CYP3A4 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



WB (Western Blot)
Western blot analysis of CYP3A4 Antibody (Center) in NCI-H460 cell line lysates (35ug/lane). CYP3A4 (arrow) was detected using the purified Pab.



WB (Western Blot)
Western blot analysis of lysates from HepG2, A549, HT-29 cell line, human kidney and liver tissue lysate (from left to right), using CYP3A4 Antibody (Center). AAA284685 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



WB (Western Blot)
Western blot analysis of lysate from human ovary tissue, using CYP3A4 Antibody (Center). AAA284685 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.

ADDITIONAL INFORMATION

Related Product Information for anti-CYP3A4 antibody	CYP3A4, is a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which 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 which are are used today, including acetaminophen, codeine, cyclosporin A, diazepam and erythromycin. The enzyme also metabolizes some steroids and carcinogens.
Product Categories/Family for anti-CYP3A4 antibody	Cardiovascular; Metabolism; Signal transduction
References	Sandananaraj,E., Clin. Cancer Res. 14 (21), 7116-7126 (2008) Nelson,D.R., Pharmacogenetics 14 (1), 1-18 (2004) Inoue,K., Jpn. J. Hum. Genet. 37 (2), 133-138 (1992)

NCBI AND UNIPROT INFORMATION

NCBI GI #	322302351
NCBI GeneID	1576
NCBI Accession #	NP_001189784.1; NP_059488.2
NCBI GenBank Nucleotide #	NM_001202855.2
UniProt Accession #	P08684; P05184; Q16757; Q9UK50
Molecular Weight	57343
NCBI Official Full Name	cytochrome P450 3A4 isoform 2
NCBI Official Synonym Full Names	cytochrome P450, family 3, subfamily A, polypeptide 4
NCBI Official Symbol	CYP3A4
NCBI Official Synonym Symbols	HLP; CP33; CP34; CYP3A; NF-25; CYP3A3; P450C3; CYP11A3; CYP11A4; P450PCN1
NCBI Protein Information	cytochrome P450 3A4
UniProt Protein Name	Cytochrome P450 3A4
UniProt Gene Name	CYP3A4
UniProt Synonym Gene Names	CYP3A3
UniProt Entry Name	CP3A4_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/cyp3a4-antibody-flow-cytometry-immunohistochemistry-western-blot-elisa/284685>