



RABBIT ANTI-HUMAN CYTOCHROME P450 ENZYME CYP3A4 POLYCLONAL ANTIBODY

CATALOG NUMBER:	AB1254	QUANTITY:	100 µL
LOT NUMBER:			
ALTERNATE NAMES:	Cytochrome P450, family 3, subfamily A, polypeptide 4	EPITOPE:	C-terminus
HOST/ISOTYPE:	Rabbit IgG		
BACKGROUND:	This gene, CYP3A4, encodes 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 used 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.		
SPECIFICITY:	The rabbit polyclonal serum detects CYP3A4 in humans and rats; by sequence homology of the immunogen used, cross reactivity to CYP3A7, 3A6v4;3A2v1, 3A8, 3A9 maybe expected but is untested at this time.		
IMMUNOGEN:	A synthetic peptide with the C-terminal peptide sequence of TVSGA from human CYP3A4. The peptide was coupled to KLH.		
APPLICATIONS:	Western blot: 1:1000-1:2000: Using microsomal membrane fractions, detects a band at ~54kDa; other bands may be present as well. Antibody has been successfully used to detect CYP3A4 on LICOR fluorescent westerns as well. Immunohistochemistry: 10% formalin fixed, paraffin embedded tissues 1:200-1:400, microwave-citric acid antigen recovery is suggested.		
SPECIES REACTIVITY:	Human, pig, but homology expects reactivity with rat and other mammals but this is untested.		
CONTROL:	Human liver microsomes		
PRESENTATION:	Rabbit antiserum containing no preservatives.		
STORAGE/HANDLING:	Maintain at -20°C in undiluted aliquots for up to 12 months. Avoid repeated freeze/thaw cycles.		
REFERENCES:	Nishi, K et al (2004) The expression of intestinal CYP3A4 in the piglet model. <i>Transplantation Proceedings</i>, 36(2):361-363. {Pig, IH(P)}		



Yao, D et al (2000) Detoxication of vinca Alkaloids by human P450 CYP3A4-mediated metabolism: Implications for the development of drug resistance. *Pharmacology*, **294(1)**:387-395. {western blot, cell lines}.

Important Note: *During shipment, small volumes of product will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 μ L or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.*

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