

# Cytochrome P450 1A2 Rabbit mAb

Catalog # AP77899

## Product Information

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<b>Application</b>	WB, IF, FC, ICC
<b>Primary Accession</b>	<a href="#">P05177</a>
<b>Reactivity</b>	Human
<b>Host</b>	Rabbit
<b>Clonality</b>	Monoclonal Antibody
<b>Isotype</b>	IgG
<b>Conjugate</b>	Unconjugated
<b>Immunogen</b>	A synthesized peptide derived from human Cytochrome P450 1A2
<b>Purification</b>	Affinity Chromatography
<b>Calculated MW</b>	58407

## Additional Information

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<b>Gene ID</b>	1544
<b>Other Names</b>	CYP1A2
<b>Dilution</b>	WB~~1/500-1/1000 IF~~1:50~200 FC~~1:10~50 ICC~~N/A
<b>Format</b>	Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol.
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

## Protein Information

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<b>Name</b>	CYP1A2 {ECO:0000303   PubMed:2575218, ECO:0000312   HGNC:HGNC:2596}
<b>Function</b>	A cytochrome P450 monooxygenase involved in the metabolism of various endogenous substrates, including fatty acids, steroid hormones and vitamins (PubMed: <a href="#">10681376</a> , PubMed: <a href="#">11555828</a> , PubMed: <a href="#">12865317</a> , PubMed: <a href="#">19965576</a> , PubMed: <a href="#">9435160</a> ). 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) (PubMed: <a href="#">10681376</a> , PubMed: <a href="#">11555828</a> , PubMed: <a href="#">12865317</a> , PubMed: <a href="#">19965576</a> , PubMed: <a href="#">9435160</a> ). Catalyzes the hydroxylation of carbon-hydrogen bonds (PubMed: <a href="#">11555828</a> , PubMed: <a href="#">12865317</a> ). Exhibits high catalytic activity for the formation of hydroxyestrogens from estrone (E1) and 17beta-estradiol (E2), namely 2-hydroxy E1 and E2 (PubMed: <a href="#">11555828</a> , PubMed: <a href="#">12865317</a> ). Metabolizes cholesterol toward 25-hydroxycholesterol, a physiological regulator of cellular cholesterol homeostasis (PubMed: <a href="#">21576599</a> ). May act as

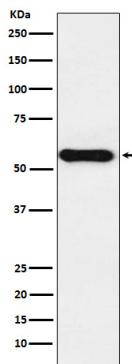
a major enzyme for all-trans retinoic acid biosynthesis in the liver. Catalyzes two successive oxidative transformation of all-trans retinol to all-trans retinal and then to the active form all-trans retinoic acid (PubMed:[10681376](#)). Primarily catalyzes stereoselective epoxidation of the last double bond of polyunsaturated fatty acids (PUFA), displaying a strong preference for the (R,S) stereoisomer (PubMed:[19965576](#)). Catalyzes bisallylic hydroxylation and omega-1 hydroxylation of PUFA (PubMed:[9435160](#)). May also participate in eicosanoids metabolism by converting hydroperoxide species into oxo metabolites (lipoxygenase-like reaction, NADPH- independent) (PubMed:[21068195](#)). Plays a role in the oxidative metabolism of xenobiotics. Catalyzes the N-hydroxylation of heterocyclic amines and the O-deethylation of phenacetin (PubMed:[14725854](#)). Metabolizes caffeine via N3-demethylation (Probable).

**Cellular Location** Endoplasmic reticulum membrane; Peripheral membrane protein. Microsome membrane; Peripheral membrane protein

**Tissue Location** Liver.

## Images

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