

**Cytochrome P450 1A2 Antibody**  
Rabbit mAb  
Catalog # AP91933

**Specification**

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**Cytochrome P450 1A2 Antibody - Product Information**

Application	<b>WB, FC, ICC</b>
Primary Accession	<a href="#">P05177</a>
Clonality	<b>Monoclonal</b>
<b>Other Names</b>	
CP12; CYP1A2; CYPIA2; P3 450; P450 4; P450 P3;	

Isotype	<b>Rabbit IgG</b>
Host	<b>Rabbit</b>
Calculated MW	<b>58407 Da</b>

**Cytochrome P450 1A2 Antibody - Additional Information**

Purification	<b>Affinity-chromatography</b>
Immunogen	<b>A synthesized peptide derived from human Cytochrome P450 1A2</b>
Description	<b>Cytochromes P450 are a group of heme-thiolate monooxygenases. In liver microsomes, this enzyme is involved in an NADPH-dependent electron transport pathway.</b>
Storage Condition and Buffer	<b>Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.</b>

**Cytochrome P450 1A2 Antibody - Protein Information**

**Name** CYP1A2 {ECO:0000303|PubMed:2575218, ECO:0000312|HGNC:HGNC:2596}

**Function**

A cytochrome P450 monooxygenase involved in the metabolism of various endogenous substrates, including fatty acids, steroid hormones and vitamins (PubMed:<a href="http://www.uniprot.org/citations/10681376" target="\_blank">10681376</a>, PubMed:<a href="http://www.uniprot.org/citations/11555828" target="\_blank">11555828</a>, PubMed:<a href="http://www.uniprot.org/citations/12865317" target="\_blank">12865317</a>, PubMed:<a href="http://www.uniprot.org/citations/19965576" target="\_blank">19965576</a>, PubMed:<a href="http://www.uniprot.org/citations/9435160" target="\_blank">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="http://www.uniprot.org/citations/10681376" target="\_blank">10681376</a>, PubMed:<a href="http://www.uniprot.org/citations/11555828" target="\_blank">11555828</a>, PubMed:<a href="http://www.uniprot.org/citations/10681376" target="\_blank">10681376</a>, PubMed:<a href="http://www.uniprot.org/citations/11555828" target="\_blank">11555828</a>, PubMed:<a href="http://www.uniprot.org/citations/10681376" target="\_blank">10681376</a>, PubMed:<a href="http://www.uniprot.org/citations/11555828" target="\_blank">11555828</a>).

<http://www.uniprot.org/citations/12865317> target="\_blank">12865317</a>, PubMed:<a href="http://www.uniprot.org/citations/19965576" target="\_blank">19965576</a>, PubMed:<a href="http://www.uniprot.org/citations/9435160" target="\_blank">9435160</a>). Catalyzes the hydroxylation of carbon-hydrogen bonds (PubMed:<a href="http://www.uniprot.org/citations/11555828" target="\_blank">11555828</a>, PubMed:<a href="http://www.uniprot.org/citations/12865317" target="\_blank">12865317</a>). Exhibits high catalytic activity for the formation of hydroxysteroids from estrone (E1) and 17beta- estradiol (E2), namely 2-hydroxy E1 and E2 (PubMed:<a href="http://www.uniprot.org/citations/11555828" target="\_blank">11555828</a>, PubMed:<a href="http://www.uniprot.org/citations/12865317" target="\_blank">12865317</a>). Metabolizes cholesterol toward 25-hydroxycholesterol, a physiological regulator of cellular cholesterol homeostasis (PubMed:<a href="http://www.uniprot.org/citations/21576599" target="\_blank">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:<a href="http://www.uniprot.org/citations/10681376" target="\_blank">10681376</a>). Primarily catalyzes stereoselective epoxidation of the last double bond of polyunsaturated fatty acids (PUFA), displaying a strong preference for the (R,S) stereoisomer (PubMed:<a href="http://www.uniprot.org/citations/19965576" target="\_blank">19965576</a>). Catalyzes bisallylic hydroxylation and omega-1 hydroxylation of PUFA (PubMed:<a href="http://www.uniprot.org/citations/9435160" target="\_blank">9435160</a>). May also participate in eicosanoids metabolism by converting hydroperoxide species into oxo metabolites (lipoxygenase-like reaction, NADPH- independent) (PubMed:<a href="http://www.uniprot.org/citations/21068195" target="\_blank">21068195</a>). Plays a role in the oxidative metabolism of xenobiotics. Catalyzes the N-hydroxylation of heterocyclic amines and the O-deethylation of phenacetin (PubMed:<a href="http://www.uniprot.org/citations/14725854" target="\_blank">14725854</a>). Metabolizes caffeine via N3-demethylation (Probable).

#### Cellular Location

Endoplasmic reticulum membrane; Peripheral membrane protein. Microsome membrane; Peripheral membrane protein

#### Tissue Location

Liver.

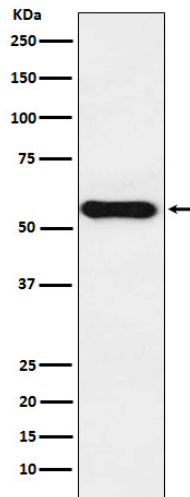
### Cytochrome P450 1A2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Cytochrome P450 1A2 Antibody - Images





Western blot analysis of Cytochrome P450 1A2 expression in Caco2 cell lysate.