

**Anti-Cytochrome P450 1A2 CYP1A2 Monoclonal Antibody**  
Catalog # ABO14705

**Specification**

**Anti-Cytochrome P450 1A2 CYP1A2 Monoclonal Antibody - Product Information**

Application	WB, IF, ICC, FC
Primary Accession	<a href="#">P05177</a>
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Human
Clonality	Monoclonal
Format	Liquid

**Description**

Anti-Cytochrome P450 1A2 CYP1A2 Monoclonal Antibody . Tested in WB, ICC/IF, Flow Cytometry applications. This antibody reacts with Human.

**Anti-Cytochrome P450 1A2 CYP1A2 Monoclonal Antibody - Additional Information**

**Gene ID** 1544

**Other Names**

Cytochrome P450 1A2, 1.14.14.1, CYP1A2, Cholesterol 25-hydroxylase, Cytochrome P(3)450, Cytochrome P450 4, Cytochrome P450-P3, Hydroperoxy icosatetraenoate dehydratase, 4.2.1.152, CYP1A2 {ECO:0000303|PubMed:2575218, ECO:0000312|HGNC:HGNC:2596}

**Application Details**

WB 1:500-1:2000<br>ICC/IF 1:50-1:200<br>FC 1:500

**Contents**

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

**Immunogen**

A synthesized peptide derived from human Cytochrome P450 1A2

**Purification**

Affinity-chromatography

**Storage**

**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.**

**Anti-Cytochrome P450 1A2 CYP1A2 Monoclonal 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/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.

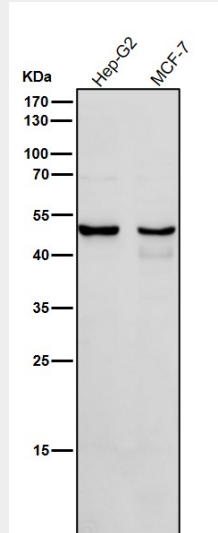
### Anti-Cytochrome P450 1A2 CYP1A2 Monoclonal Antibody - Protocols

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

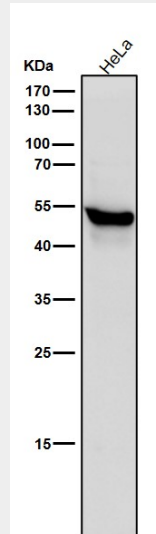
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)

- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

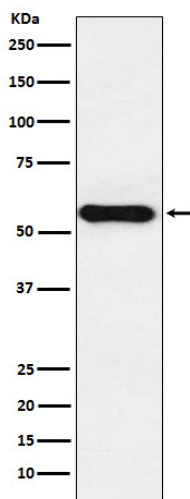
### Anti-Cytochrome P450 1A2 CYP1A2 Monoclonal Antibody - Images



All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



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