

# Anti-CYP1A1 Antibody

Rabbit Anti Human Polyclonal Antibody  
Catalog # ALS18165

## Product Information

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<b>Application</b>	WB, IHC-P
<b>Primary Accession</b>	<a href="#">P04798</a>
<b>Predicted</b>	Human, Mouse, Rat
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG
<b>Calculated MW</b>	58165

## Additional Information

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<b>Gene ID</b>	1543
<b>Alias Symbol</b> <b>Other Names</b>	CYP1A1 CYP1A1, AHH, Aryl hydrocarbon hydroxylase, Cytochrome P450-C, CP11, CYP1A1, Cytochrome P450 form 6, Cytochrome p450 ia1, Cytochrome P450 1A1, Cytochrome P450-P1, p1-450, p450-C, p450DX, CYP1
<b>Target/Specificity</b>	Human CYP1A1
<b>Reconstitution &amp; Storage</b>	Affinity purified
<b>Precautions</b>	Anti-CYP1A1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	CYP1A1 {ECO:0000303   PubMed:10681376, ECO:0000312   HGNC:HGNC:2595}
<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="#">14559847</a> , PubMed: <a href="#">15041462</a> , PubMed: <a href="#">15805301</a> , PubMed: <a href="#">18577768</a> , PubMed: <a href="#">19965576</a> , PubMed: <a href="#">20972997</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="#">14559847</a> , PubMed: <a href="#">15041462</a> , PubMed: <a href="#">15805301</a> , PubMed: <a href="#">18577768</a> , PubMed: <a href="#">19965576</a> , PubMed: <a href="#">20972997</a> ). Catalyzes the hydroxylation of carbon-hydrogen bonds. Exhibits high catalytic activity for

the formation of hydroxyestrogens from estrone (E1) and 17beta-estradiol (E2), namely 2-hydroxy E1 and E2, as well as D-ring hydroxylated E1 and E2 at the C15-alpha and C16- alpha positions (PubMed:[11555828](#), PubMed:[12865317](#), PubMed:[14559847](#), PubMed:[15805301](#)). Displays different regioselectivities for polyunsaturated fatty acids (PUFA) hydroxylation (PubMed:[15041462](#), PubMed:[18577768](#)). Catalyzes the epoxidation of double bonds of certain PUFA (PubMed:[15041462](#), PubMed:[19965576](#), PubMed:[20972997](#)). Converts arachidonic acid toward epoxyeicosatrienoic acid (EET) regioisomers, 8,9-, 11,12-, and 14,15-EET, that function as lipid mediators in the vascular system (PubMed:[20972997](#)). Displays an absolute stereoselectivity in the epoxidation of eicosapentaenoic acid (EPA) producing the 17(R),18(S) enantiomer (PubMed:[15041462](#)). May play an important role in all-trans retinoic acid biosynthesis in extrahepatic tissues. 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](#)). May also participate in eicosanoids metabolism by converting hydroperoxide species into oxo metabolites (lipoxygenase-like reaction, NADPH-independent) (PubMed:[21068195](#)).

#### Cellular Location

Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:P00185}; Peripheral membrane protein {ECO:0000250|UniProtKB:P00185}. Mitochondrion inner membrane {ECO:0000250|UniProtKB:P00185}; Peripheral membrane protein {ECO:0000250|UniProtKB:P00185}. Microsome membrane {ECO:0000250|UniProtKB:P00185}; Peripheral membrane protein {ECO:0000250|UniProtKB:P00185}. Cytoplasm {ECO:0000250|UniProtKB:P00185}

#### Tissue Location

Lung, lymphocytes and placenta.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.