

Anti-Cytochrome P450 4A11/22 Antibody
Catalog # AP53665**Specification****Anti-Cytochrome P450 4A11/22 Antibody - Product Information**

Application	WB
Primary Accession	Q02928
Other Accession	Q5TCH4
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	59348

Anti-Cytochrome P450 4A11/22 Antibody - Additional Information**Gene ID** 1579**Other Names**

CYP4A11; CYP4A2; Cytochrome P450 4A11; 20-hydroxyeicosatetraenoic acid synthase; 20-HETE synthase; CYP4AII; CYP4A11; Cytochrome P-450HK-omega; Cytochrome P450HL-omega; Fatty acid omega-hydroxylase; Lauric acid omega-hydroxylase; CYP4A22; Cytochrome P450 4A22; CYP4A22; Fatty acid omega-hydroxylase; Lauric acid omega-hydroxylase

Target/Specificity

Recognizes endogenous levels of Cytochrome P450 4A11/22 protein.

Dilution

WB~~1/500 - 1/1000

Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Anti-Cytochrome P450 4A11/22 Antibody - Protein Information**Name** CYP4A11 {ECO:0000303|PubMed:8274222, ECO:0000312|HGNC:HGNC:2642}**Function**

A cytochrome P450 monooxygenase involved in the metabolism of fatty acids and their oxygenated derivatives (oxylipins) (PubMed: [10553002](http://www.uniprot.org/citations/10553002) target="_blank">10553002, PubMed: [10660572](http://www.uniprot.org/citations/10660572) target="_blank">10660572, PubMed: [15611369](http://www.uniprot.org/citations/15611369) target="_blank">15611369, PubMed: [1739747](http://www.uniprot.org/citations/1739747) target="_blank">1739747, PubMed: [7679927](http://www.uniprot.org/citations/7679927) target="_blank">7679927, PubMed: [8914854](http://www.uniprot.org/citations/8914854) target="_blank">8914854)

target="_blank">8914854). 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 (CPR; NADPH-ferrihemoprotein reductase) (PubMed:10553002, PubMed:10660572, PubMed:15611369, PubMed:1739747, PubMed:7679927, PubMed:8914854). Catalyzes predominantly the oxidation of the terminal carbon (omega-oxidation) of saturated and unsaturated fatty acids, the catalytic efficiency decreasing in the following order: dodecanoic > tetradecanoic > (9Z,12Z)-octadecenoic > (9Z,12Z)-octadecadienoic > hexadecanoic acid (PubMed:10553002, PubMed:10660572). Acts as a major omega-hydroxylase for dodecanoic (lauric) acid in liver (PubMed:15611369, PubMed:1739747, PubMed:7679927, PubMed:8914854). Participates in omega-hydroxylation of (5Z,8Z,11Z,14Z)-eicosatetraenoic acid (arachidonate) to 20-hydroxyeicosatetraenoic acid (20-HETE), a signaling molecule acting both as vasoconstrictive and natriuretic with overall effect on arterial blood pressure (PubMed:10620324, PubMed:10660572, PubMed:15611369). Can also catalyze the oxidation of the penultimate carbon (omega-1 oxidation) of fatty acids with lower efficiency (PubMed:7679927). May contribute to the degradation of saturated very long-chain fatty acids (VLCFAs) such as docosanoic acid, by catalyzing successive omega-oxidations to the corresponding dicarboxylic acid, thereby initiating chain shortening (PubMed:18182499). Omega-hydroxylates (9R,10S)-epoxy-octadecanoate stereoisomer (PubMed:15145985). Plays a minor role in omega-oxidation of long-chain 3-hydroxy fatty acids (PubMed:18065749). Has little activity toward prostaglandins A1 and E1 (PubMed:7679927).

Cellular Location

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

Tissue Location

Expressed in liver (PubMed:7679927). Expressed in S2 and S3 segments of proximal tubules in cortex and outer medulla of kidney (PubMed:10660572, PubMed:7679927).

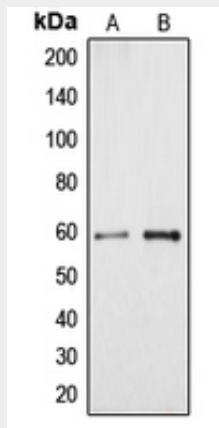
Anti-Cytochrome P450 4A11/22 Antibody - Protocols

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 4A11/22 Antibody - Images



Western blot analysis of Cytochrome P450 4A11/22 expression in HeLa (A), HuvEc (B) whole cell lysates.

Anti-Cytochrome P450 4A11/22 Antibody - Background

Rabbit polyclonal antibody to Cytochrome P450 4A11/22