

Rabbit anti-Human CYP4A11 (4A22) Polyclonal Antibody | anti-CYP4A11 antibody

CYP4A11 (4A22) Antibody (C-term)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA288068	Rabbit	Human	ELISA, Western Blot, Immunofluorescence

PRODUCT SYNONYMS

CYP4A11 (4A22); Polyclonal Antibody; CYP4A11 (4A22) Antibody (C-term); Cytochrome P450 4A11; 20-hydroxyeicosatetraenoic acid synthase; 20-HETE synthase; CYP4AII; CYPIVA11; Cytochrome P-450HK-omega; Cytochrome P450HL-omega; Fatty acid omega-hydroxylase; Lauric acid omega-hydroxylase; CYP4A11; CYP4A2; anti-CYP4A11 antibody

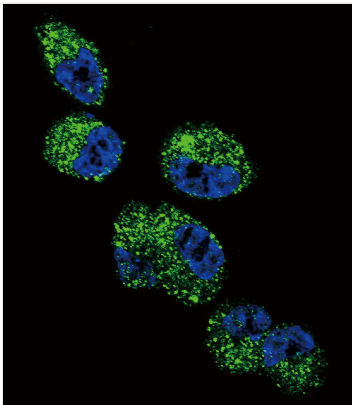
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit Ig
Specificity	This CYP4A11 (4A22) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 407-435 amino acids from the C-terminal region of human CYP4A11 (4A22).
Purity/Purification	Purified Rabbit Polyclonal Antibody (Pab)
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Sequence Positions	407-435
Sequence Length	519
Applicable Applications for anti-CYP4A11 antibody	ELISA, WB (Western Blot), IF (Immunofluorescence)
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:7679927, PubMed:10660572).
Function	A cytochrome P450 monooxygenase involved in the metabolism of fatty acids and their oxygenated derivatives (oxylipins) (PubMed: , PubMed: , PubMed: , PubMed: , PubMed: , PubMed:). 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: , PubMed: , PubMed: , PubMed: , PubMed:). 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)-octadecenoic > (9Z,12Z)-octadecadienoic > hexadecanoic acid (PubMed: , PubMed:). Acts as a major omega-hydroxylase for dodecanoic (lauric) acid in liver (PubMed: , PubMed: , PubMed: , PubMed:). 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: , PubMed: , PubMed:). Can also catalyze the oxidation of the penultimate carbon (omega-1 oxidation) of fatty acids with lower efficiency (PubMed:). 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:). Omega-hydroxylates (9R,10S)-epoxy-octadecanoate stereoisomer (PubMed:). Plays a minor role in omega-oxidation of long-chain 3-hydroxy fatty acids (PubMed:). Has little activity toward prostaglandins A1 and E1 (PubMed:).

Preparation and Storage

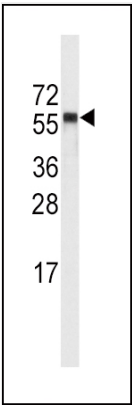
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

IMAGES



IF (Immunofluorescence)

Confocal immunofluorescent analysis of CYP4A11 (4A22) Antibody (C-term) with NCI-H460 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).



WB (Western Blot)

Western blot analysis of anti-CYP4A11 (4A22) Antibody (C-term) in NCI-H460 cell line lysates (35ug/lane). CYP4A11 (arrow) was detected using the purified Pab.

ADDITIONAL INFORMATION

Related Product Information for anti-CYP4A11 antibody	CYP4A11 is a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. This protein localizes to the endoplasmic reticulum and hydroxylates medium-chainfatty acids such as laurate and myristate.
Product Categories/Family for anti-CYP4A11 antibody	Cancer; Cardiovascular; Metabolism; Signal transduction
References	Sugimoto,K., Hypertension 52 (6), 1142-1148 (2008) Ward,N.C., Hypertension 51 (5), 1393-1398 (2008) Nelson,D.R., Pharmacogenetics 14 (1), 1-18 (2004)

NCBI AND UNIPROT INFORMATION

NCBI GI #	158937242
NCBI GeneID	1579
NCBI Accession #	NP_000769.2
NCBI GenBank Nucleotide #	NM_000778.3
UniProt Accession #	Q02928; Q06766; Q16865; Q16866; Q5VSP8; Q86SU6; Q8IWY5
Molecular Weight	59348
NCBI Official Full Name	cytochrome P450 4A11
NCBI Official Synonym Full Names	cytochrome P450, family 4, subfamily A, polypeptide 11
NCBI Official Symbol	CYP4A11
NCBI Official Synonym Symbols	CP4Y; CYP4A2; CYP4AII
NCBI Protein Information	cytochrome P450 4A11
UniProt Protein Name	Cytochrome P450 4A11
UniProt Gene Name	CYP4A11

UniProt Synonym Gene Names	CYP4A2; 20-HETE synthase
UniProt Entry Name	CP4AB_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/cyp4a11-4a22-antibody-western-blot-immunofluorescence-elisa/288068>