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CYP4F8 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP7890b

Specification

CYP4F8 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession P98187

CYP4F8 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 11283

Other Names
Cytochrome P450 4F8, CYPIVF8, CYP4F8

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7890b was selected from the C-term region of human CYP4F8. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CYP4F8 Antibody (C-term) Blocking Peptide - Protein Information

Name CYP4F8 {ECO:0000303|PubMed:10791960, ECO:0000312|HGNC:HGNC:2648}

Function
A cytochrome P450 monooxygenase involved in the metabolism of endogenous polyunsaturated fatty acids (PUFAs) and their oxygenated derivatives (oxylipins). 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). Catalyzes the hydroxylation of carbon hydrogen bonds, with preference for omega-1 and omega-2 positions (PubMed:10791960, PubMed:15789615, PubMed:16112640). Hydroxylates (5Z,8Z,11Z,14Z)-eicosatetraenoic acid (arachidonate) predominantly at omega-2 position to form (18R)- hydroxyeicosatetraenoic acid (18R-HETE) (PubMed:10791960). Exhibits

omega-1 hydroxylase activity toward prostaglandin (PG) H1, PGH2 and PGI2 (PubMed:10791960, PubMed:15789615). Catalyzes the epoxidation of double bonds of PUFAs, including docosahexaenoic and docosapentaenoic acids (PubMed:16112640). Shows little activity against PGD2, PGE1, PGE2, PGF2alpha, and leukotriene B4.

Cellular Location
Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q9HBI6}; Single-pass membrane protein {ECO:0000250|UniProtKB:Q9HBI6}. Microsome membrane {ECO:0000250|UniProtKB:Q9HBI6}; Single-pass membrane protein {ECO:0000250|UniProtKB:Q9HBI6}

Tissue Location
Expressed in the epithelium of seminal vesicles, in renal cortex, in adult and fetal liver, in epidermis, in corneal epithelium, in sweat glands, hair follicles, epithelial linings of the ampulla of vas deferens and of the stomach and small intestine, as well as in the transitional epithelium of the bladder and ureter (at protein level). In the epidermis, expressed from the basal cell to the granular cell layers. In the corneal epithelium, expressed in all cell layers Also detected in prostate. Up-regulated in the epidermis of psoriatic lesions.

CYP4F8 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

CYP4F8 Antibody (C-term) Blocking Peptide - Images

CYP4F8 Antibody (C-term) Blocking Peptide - Background

CYP4F8 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 functions as a 19-hydroxylase of prostaglandins in seminal vesicles.

CYP4F8 Antibody (C-term) Blocking Peptide - References

Bylund J., Finnstroem N., Biophys. Res. Commun. 261:169-174(1999)Bylund J., Hidestrand M.,J. Biol. Chem. 275:21844-21849(2000) Stark K., Toermae H.,Arch. Biochem. Biophys. 409:188-196(2003) Stark K., Bylund J.,Prostaglandins Other Lipid Mediat. 75:47-64(2005)