

## CYP4Z1 Antibody (N-term) Blocking Peptide

Synthetic peptide Catalog # BP7886a

### **Specification**

## CYP4Z1 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession

**Q86W10** 

# CYP4Z1 Antibody (N-term) Blocking Peptide - Additional Information

**Gene ID** 199974

#### **Other Names**

Cytochrome P450 4Z1, CYPIVZ1, CYP4Z1

### Target/Specificity

The synthetic peptide sequence used to generate the antibody <a href=/products/AP7886a>AP7886a</a> was selected from the N-term region of human CYP4Z1. 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.

## CYP4Z1 Antibody (N-term) Blocking Peptide - Protein Information

Name CYP4Z1 {ECO:0000303|PubMed:19090726, ECO:0000312|HGNC:HGNC:20583}

### **Function**

A cytochrome P450 monooxygenase that catalyzes the in-chain oxidation of fatty acids (PubMed:<a href="http://www.uniprot.org/citations/19090726" target="\_blank">19090726</a>, PubMed:<a href="http://www.uniprot.org/citations/29018033" target="\_blank">29018033</a>). Catalyzes the hydroxylation of carbon-hydrogen bonds. Hydroxylates lauric and myristic acids predominantly at the omega-4 and omega-2 positions, respectively (PubMed:<a href="http://www.uniprot.org/citations/19090726" target="\_blank">19090726</a>, PubMed:<a href="http://www.uniprot.org/citations/29018033" target="\_blank">29018033</a>,). Catalyzes the epoxidation of double bonds of polyunsaturated fatty acids (PUFA). Displays an absolute stereoselectivity in the epoxidation of arachidonic acid producing the 14(S),15(R)-epoxyeicosatrienoic acid (EET) enantiomer (PubMed:<a href="http://www.uniprot.org/citations/29018033" target="\_blank">29018033</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 (CPR; NADPH-ferrihemoprotein reductase) (PubMed:<a href="http://www.uniprot.org/citations/19090726" target="\_blank">19090726</a>, PubMed:<a href="http://www.uniprot.org/citations/29018033" target="\_blank">29018033</a>).

#### **Cellular Location**

Endoplasmic reticulum membrane; Single-pass type II membrane protein. Microsome membrane; Single-pass type II membrane protein

#### **Tissue Location**

Preferentially detected in breast carcinoma tissue and mammary gland, whereas only marginal expression is found in all other tested tissues.

### CYP4Z1 Antibody (N-term) Blocking Peptide - Protocols

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

#### Blocking Peptides

CYP4Z1 Antibody (N-term) Blocking Peptide - Images

### CYP4Z1 Antibody (N-term) Blocking Peptide - Background

CYP4Z1 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.

### CYP4Z1 Antibody (N-term) Blocking Peptide - References

Savas, U., Arch. Biochem. Biophys. 436 (2), 377-385 (2005) Rieger, M.A., Cancer Res. 64 (7), 2357-2364 (2004)