

# CYP5A1 Antibody (Center) Blocking peptide

Synthetic peptide Catalog # BP12077c

## **Specification**

# CYP5A1 Antibody (Center) Blocking peptide - Product Information

Primary Accession

P24557

# CYP5A1 Antibody (Center) Blocking peptide - Additional Information

**Gene ID 6916** 

#### **Other Names**

Thromboxane-A synthase, TXA synthase, TXS, Cytochrome P450 5A1, TBXAS1, CYP5, CYP5A1

### **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.

## CYP5A1 Antibody (Center) Blocking peptide - Protein Information

# Name TBXAS1

Synonyms CYP5, CYP5A1 {ECO:0000303|PubMed:1146554

### **Function**

Catalyzes the conversion of prostaglandin H2 (PGH2) to thromboxane A2 (TXA2), a potent inducer of blood vessel constriction and platelet aggregation (PubMed:<a href="http://www.uniprot.org/citations/8436233" target="\_blank">8436233</a>, PubMed:<a href="http://www.uniprot.org/citations/11297515" target="\_blank">11297515</a>, PubMed:<a href="http://www.uniprot.org/citations/9873013" target="\_blank">9873013</a>, PubMed:<a href="http://www.uniprot.org/citations/11097184" target="\_blank">11097184</a>, PubMed:<a href="http://www.uniprot.org/citations/24009185" target="\_blank">24009185</a>, PubMed:<a href="http://www.uniprot.org/citations/22735388" target="\_blank">22735388</a>, Cleaves also PGH2 to 12-hydroxy-heptadecatrienoicacid (12-HHT) and malondialdehyde, which is known to act as a mediator of DNA damage. 12- HHT and malondialdehyde are formed stoichiometrically in the same amounts as TXA2 (PubMed:<a href="http://www.uniprot.org/citations/1297515" target="\_blank">11297515</a>, PubMed:<a href="http://www.uniprot.org/citations/9873013" target="\_blank">9873013</a>, PubMed:<a href="http://www.uniprot.org/citations/22735388" target="\_blank">22735388</a>, Additionally, displays dehydratase activity, toward (15S)-hydroperoxy- (5Z,8Z,11Z,13E)-eicosatetraenoate (15(S)-HPETE) producing 15-KETE and 15-HETE (PubMed:<a href="http://www.uniprot.org/citations/17459323"



target=" blank">17459323</a>).

### **Cellular Location**

Endoplasmic reticulum membrane; Multi-pass membrane protein

#### **Tissue Location**

Platelets, lung, kidney, spleen, macrophages and lung fibroblasts.

### CYP5A1 Antibody (Center) Blocking peptide - Protocols

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

### Blocking Peptides

## CYP5A1 Antibody (Center) Blocking peptide - Images

# CYP5A1 Antibody (Center) Blocking peptide - Background

This gene encodes a member of the cytochrome P450superfamily of enzymes. The cytochrome P450 proteins aremonoxygenases which catalyze many reactions involved in drugmetabolism and synthesis of cholesterol, steroids and other lipids. However, this protein is considered a member of the cytochrome P450superfamily on the basis of sequence similarity rather thanfunctional similarity. This endoplasmic reticulum membrane proteincatalyzes the conversion of prostglandin H2 to thromboxane A2, apotent vasoconstrictor and inducer of platelet aggregation. Theenzyme plays a role in several pathophysiological processes including hemostasis, cardiovascular disease, and stroke. Alternatively spliced transcript variants encoding differentisoforms have been found for this gene.

## CYP5A1 Antibody (Center) Blocking peptide - References

Shimada, M., et al. Hum. Genet. 128(4):433-441(2010)Wang, L.H., et al. Prostaglandins Other Lipid Mediat. 68-69, 409-422 (2002):Tazawa, R., et al. Arch. Biochem. Biophys. 334(2):349-356(1996)Baek, S.J., et al. Gene 173(2):251-256(1996)Wang, L.H., et al. Arch. Biochem. Biophys. 315(2):273-278(1994)