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CYP5A1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12077c

Specification

CYP5A1 Antibody (Center) - Product Information

Application	**IHC-P, WB,E**
Primary Accession	P24557
Other Accession	Q2PG45, Q2KIG5, NP_001052.2, NP_001124438.1
Reactivity	**Mouse**
Predicted	**Bovine, Monkey**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**60518**
Antigen Region	**226-257**

CYP5A1 Antibody (Center) - Additional Information

Gene ID 6916

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

Target/Specificity
This CYP5A1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 226-257 amino acids from the Central region of human CYP5A1.

Dilution
IHC-P~~1:10~50
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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.

Precautions
CYP5A1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

CYP5A1 Antibody (Center) - Protein Information

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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:11097184, PubMed:11297515, PubMed:22735388, PubMed:24009185, PubMed:8436233, PubMed:9873013). Also cleaves 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:11297515, PubMed:22735388, PubMed:9873013). Additionally, displays dehydratase activity, toward (15S)-hydroperoxy-(5Z,8Z,11Z,13E)-eicosatetraenoate (15(S)-HPETE) producing 15-KETE and 15-HETE (PubMed:17459323).

Cellular Location
Endoplasmic reticulum membrane; Multi-pass membrane protein

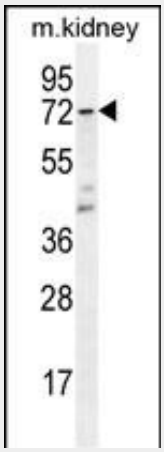
Tissue Location
Platelets, lung, kidney, spleen, macrophages and lung fibroblasts.

CYP5A1 Antibody (Center) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CYP5A1 Antibody (Center) - Images



CYP5A1 Antibody (Center) (Cat. #AP12077c) western blot analysis in mouse kidney tissue lysates (35ug/lane).This demonstrates the CYP5A1 antibody detected the CYP5A1 protein (arrow).

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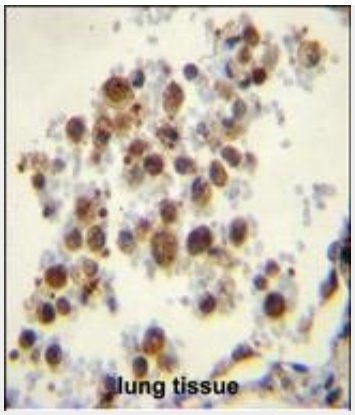

CYP5A1 Antibody (Center) (Cat. #AP12077c)immunohistochemistry analysis in formalin fixed and paraffin embedded human lung tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of CYP5A1 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

CYP5A1 Antibody (Center) - Background

This gene encodes 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. However, this protein is considered a member of the cytochrome P450 superfamily on the basis of sequence similarity rather than functional similarity. This endoplasmic reticulum membrane protein catalyzes the conversion of prostglandin H2 to thromboxane A2, a potent vasoconstrictor and inducer of platelet aggregation. The enzyme plays a role in several pathophysiological processes including hemostasis, cardiovascular disease, and stroke. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.

CYP5A1 Antibody (Center) - 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)
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