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CYP3A7 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP7898c

Specification

CYP3A7 Antibody (Center) Blocking Peptide - Product Information

Primary Accession P24462

CYP3A7 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 100861540;1551

Other Names
Cytochrome P450 3A7, CYPIIIA7, Cytochrome P450-HFLA, CYP3A7

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7898c was selected from the Center region of human CYP3A7. 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.

CYP3A7 Antibody (Center) Blocking Peptide - Protein Information

Name CYP3A7 {ECO:0000303|PubMed:17178770, ECO:0000312|HGNC:HGNC:2640}

Function
A cytochrome P450 monooxygenase involved in the metabolism of steroid hormones and vitamins during embryogenesis (PubMed:9555064, PubMed:11093772, PubMed:14559847, PubMed:12865317, PubMed:17178770). 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 (NADPH-- hemoprotein reductase) (PubMed:9555064, PubMed:11093772, PubMed:14559847, PubMed:<a

href="http://www.uniprot.org/citations/12865317" target="_blank">12865317, PubMed:17178770). Catalyzes the hydroxylation of carbon-hydrogen bonds. Metabolizes 3beta- hydroxyandrost-5-en-17-one (dehydroepiandrosterone, DHEA), a precursor in the biosynthesis of androgen and estrogen steroid hormones (PubMed:9555064, PubMed:17178770). Exhibits high catalytic activity for the formation of hydroxyestrogens from estrone (E1), particularly D- ring hydroxylated estrone at the C16-alpha position (PubMed:14559847, PubMed:12865317). Mainly hydroxylates all trans-retinoic acid (atRA) to 4-hydroxyretinoate and may play a role in atRA clearance during fetal development (PubMed:11093772). Also involved in the oxidative metabolism of xenobiotics including anticonvulsants (PubMed:9555064).

Cellular Location
Endoplasmic reticulum membrane; Peripheral membrane protein. Microsome membrane; Peripheral membrane protein

Tissue Location
Expressed in fetal liver (at protein level).

CYP3A7 Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

CYP3A7 Antibody (Center) Blocking Peptide - Images

CYP3A7 Antibody (Center) Blocking Peptide - Background

CYP3A7 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 enzyme hydroxylates testosterone and dehydroepiandrosterone 3-sulphate, which is involved in the formation of estriol during pregnancy. The enzyme also metabolizes some drugs such as aflatoxin B1.

CYP3A7 Antibody (Center) Blocking Peptide - References

Crettol,S., Ther Drug Monit 30 (6), 689-699 (2008)Hosgood,H.D. III,Carcinogenesis 29 (10), 1938-1943 (2008)Goodarzi,M.O., J. Clin. Endocrinol. Metab. 93 (7), 2909-2912 (2008)