

**CYP3A7 Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP7898a****Specification**

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**CYP3A7 Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [P24462](#)**CYP3A7 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 100861540;1551**Other Names**

Cytochrome P450 3A7, CYP3A7, Cytochrome P450-HFLA, CYP3A7

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP7898a](/products/AP7898a) was selected from the N-term 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 (N-term) 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](http://www.uniprot.org/citations/9555064), PubMed: [11093772](http://www.uniprot.org/citations/11093772), PubMed: [14559847](http://www.uniprot.org/citations/14559847), PubMed: [12865317](http://www.uniprot.org/citations/12865317), PubMed: [17178770](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/9555064), PubMed: [11093772](http://www.uniprot.org/citations/11093772), PubMed: [14559847](http://www.uniprot.org/citations/14559847), PubMed: [12865317](http://www.uniprot.org/citations/12865317), PubMed: [17178770](http://www.uniprot.org/citations/17178770)).

href="http://www.uniprot.org/citations/12865317" target="\_blank">12865317</a>, PubMed:<a href="http://www.uniprot.org/citations/17178770" target="\_blank">17178770</a>). 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:<a href="http://www.uniprot.org/citations/9555064" target="\_blank">9555064</a>, PubMed:<a href="http://www.uniprot.org/citations/17178770" target="\_blank">17178770</a>). Exhibits high catalytic activity for the formation of hydroxysteroids from estrone (E1), particularly D- ring hydroxylated estrone at the C16-alpha position (PubMed:<a href="http://www.uniprot.org/citations/14559847" target="\_blank">14559847</a>, PubMed:<a href="http://www.uniprot.org/citations/12865317" target="\_blank">12865317</a>). Mainly hydroxylates all trans-retinoic acid (atRA) to 4-hydroxyretinoate and may play a role in atRA clearance during fetal development (PubMed:<a href="http://www.uniprot.org/citations/11093772" target="\_blank">11093772</a>). Also involved in the oxidative metabolism of xenobiotics including anticonvulsants (PubMed:<a href="http://www.uniprot.org/citations/9555064" target="\_blank">9555064</a>).

#### **Cellular Location**

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

#### **Tissue Location**

Expressed in fetal liver (at protein level).

### **CYP3A7 Antibody (N-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

### **CYP3A7 Antibody (N-term) Blocking Peptide - Images**

### **CYP3A7 Antibody (N-term) 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 (N-term) 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)