

# CYP3A7 Polyclonal Antibody

Catalog # AP69414

#### **Product Information**

ApplicationWBPrimary AccessionP24462ReactivityHumanHostRabbitClonalityPolyclonalCalculated MW57470

#### **Additional Information**

**Gene ID** 100861540;1551

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

Dilution WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/20000. Not yet tested in other

applications.

Format Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium

azide.

Storage Conditions -20°C

#### **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: 11093772,

PubMed: 12865317, PubMed: 14559847, PubMed: 17178770,

PubMed:<u>9555064</u>). 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:<u>11093772</u>, PubMed:<u>12865317</u>, PubMed:<u>14559847</u>, PubMed:<u>17178770</u>, PubMed:<u>9555064</u>). 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:<u>17178770</u>, PubMed:<u>9555064</u>). Exhibits high catalytic activity for the formation of hydroxyestrogens from estrone (E1), particularly D- ring hydroxylated estrone at the C16-alpha position (PubMed:<u>12865317</u>, PubMed:<u>14559847</u>). 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

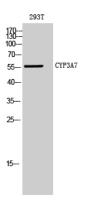
membrane; Peripheral membrane protein

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

### **Background**

Cytochromes P450 are a group of heme-thiolate monooxygenases. In liver microsomes, this enzyme is involved in an NADPH-dependent electron transport pathway. It oxidizes a variety of structurally unrelated compounds, including steroids, fatty acids, and xenobiotics.

## **Images**



Western Blot analysis of 293T cells using CYP3A7 Polyclonal Antibody diluted at 1:500

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.