

**CYP27B1 Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP21674b**

**Specification**

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**CYP27B1 Antibody (C-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">O15528</a>
Reactivity	Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Calculated MW	56504

**CYP27B1 Antibody (C-term) - Additional Information**

**Gene ID** 1594

**Other Names**

25-hydroxyvitamin D-1 alpha hydroxylase, mitochondrial, 25-OHD-1 alpha-hydroxylase, 25-hydroxyvitamin D(3) 1-alpha-hydroxylase, VD3 1A hydroxylase, Calcidiol 1-monooxygenase, Cytochrome P450 subfamily XXVIIIB polypeptide 1, Cytochrome P450C1 alpha, Cytochrome P450VD1-alpha, Cytochrome p450 27B1, CYP27B1, CYP1ALPHA, CYP27B

**Target/Specificity**

This CYP27B1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 400-429 amino acids from the C-terminal region of human CYP27B1.

**Dilution**

WB~~1:2000

**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**

CYP27B1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**CYP27B1 Antibody (C-term) - Protein Information**

**Name** CYP27B1

**Synonyms** CYP1ALPHA, CYP27B

**Function** A cytochrome P450 monooxygenase involved in vitamin D metabolism and in calcium and phosphorus homeostasis. Catalyzes the rate-limiting step in the activation of vitamin D in the kidney, namely the hydroxylation of 25-hydroxyvitamin D3/calcidiol at the C1 $\alpha$ - position to form the hormonally active form of vitamin D3, 1 $\alpha$ ,25- dihydroxyvitamin D3/calcitriol that acts via the vitamin D receptor (VDR) (PubMed:[10518789](#), PubMed:[10566658](#), PubMed:[12050193](#), PubMed:[22862690](#), PubMed:[9486994](#)). Has 1 $\alpha$ -hydroxylase activity on vitamin D intermediates of the CYP24A1-mediated inactivation pathway (PubMed:[10518789](#), PubMed:[22862690](#)). Converts 24R,25-dihydroxyvitamin D3/secalciferol to 1- $\alpha$ ,24,25-trihydroxyvitamin D3, an active ligand of VDR. Also active on 25-hydroxyvitamin D2 (PubMed:[10518789](#)). 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 FDXR/adrenodoxin reductase and FDX1/adrenodoxin (PubMed:[22862690](#)).

#### Cellular Location

Mitochondrion membrane.

#### Tissue Location

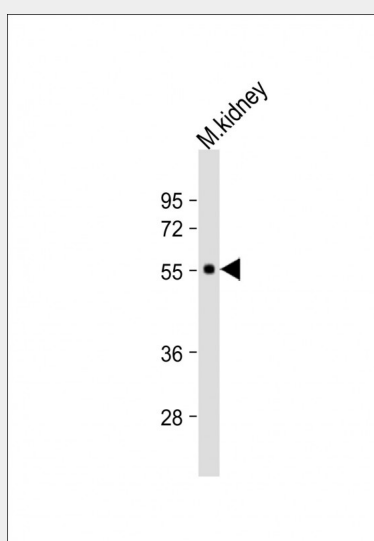
Kidney.

### CYP27B1 Antibody (C-term) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### CYP27B1 Antibody (C-term) - Images



Anti-CYP27B1 Antibody (C-term) at 1:2000 dilution + mouse kidney lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 56 kDa Blocking/Dilution buffer: 5% NFD/MBST.

### **CYP27B1 Antibody (C-term) - Background**

Catalyzes the conversion of 25-hydroxyvitamin D3 (25(OH)D) to 1-alpha,25-dihydroxyvitamin D3 (1,25(OH)2D) plays an important role in normal bone growth, calcium metabolism, and tissue differentiation.

### **CYP27B1 Antibody (C-term) - References**

Fu G.K.,et al.DNA Cell Biol. 16:1499-1507(1997).  
Monkawa T.,et al.Biochem. Biophys. Res. Commun. 239:527-533(1997).  
Fu G.K.,et al.Mol. Endocrinol. 11:1961-1970(1997).  
Huang D.C.,et al.Mol. Cancer Res. 1:56-67(2002).  
Huang D.C.,et al.Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.