

## Basic Information

Product Name	Anti-CYP27B1 Antibody	
Gene Name	CYP27B1	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC	
Contents	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human CYP27B1 different from the related mouse and rat sequences by six amino acids.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	57 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

## Storage

12 months from date of receipt, -20°C as supplied.

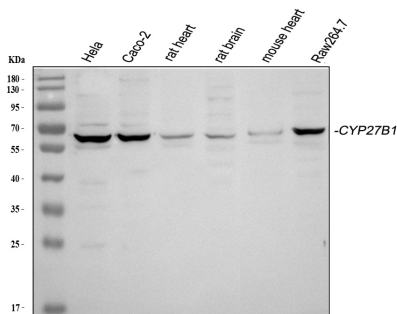
## Background Information

CYP27B1 belongs to 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. The protein encoded by this gene localizes to the inner mitochondrial membrane where it hydroxylates 25-hydroxyvitamin D<sub>3</sub> at the 1 $\alpha$  position. This reaction synthesizes 1 $\alpha$ ,25-dihydroxyvitamin D<sub>3</sub>, the active form of vitamin D<sub>3</sub>, which binds to the vitamin D receptor and regulates calcium metabolism. Thus this enzyme regulates the level of biologically active vitamin D and plays an important role in calcium homeostasis. Mutations in this gene can result in vitamin D-dependent rickets type I.

## Reference

Anti-CYP27B1 Antibody 被引用在1文献中。

## Selected Validation Data



Western blot analysis of anti- CYP27B1 antibody (PB0577). The sample well of each lane was loaded with 30ug of sample under reducing conditions.

Lane 1: human HeLa whole cell lysates,

Lane 2: human Caco-2 whole cell lysates,

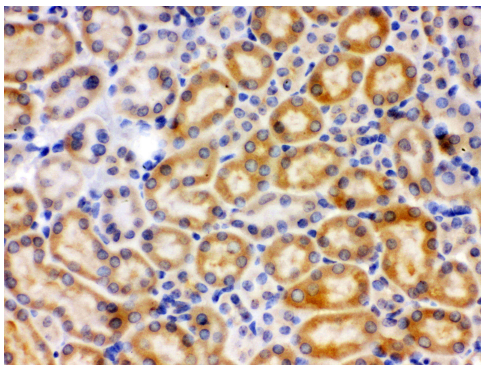
Lane 3: rat heart tissue lysates,

Lane 4: rat brain tissue lysates,

Lane 5: mouse heart tissue lysates,

Lane 6: mouse RAW264.7 whole cell lysates.

Use rabbit anti- CYP27B1 1:1000, probed with a goat anti-rabbit IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog#EK1002). A specific band was detected for CYP27B1 at approximately 57KD. The expected band size for CYP27B1 is at 57KD.



IHC analysis of CYP27B1 using anti-CYP27B1 antibody (PB0577).

CYP27B1 was detected in a paraffin-embedded section of rat kidney tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-CYP27B1 Antibody (PB0577) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.