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## **CP27B** Polyclonal Antibody

| Catalog No         | YP-Ab-07883   |
|--------------------|---|
| lsotype            | lgG   |
| Reactivity         | Human;Mouse;Rat   |
| Applications       | WB;ELISA  |
| Gene Name          | CYP27B1 CYP1ALPHA CYP27B  |
| Protein Name       | 25-hydroxyvitamin D-1 alpha hydroxylase, mitochondrial (EC 1.14.13.13)<br>(25-OHD-1 alpha-hydroxylase) (25-hydroxyvitamin D(3) 1-alpha-hydroxylase)<br>(VD3 1A hydroxylase) (Calcidiol 1-monooxygenase) (Cytoc  |
| Immunogen          | Synthesized peptide derived from part region of human protein   |
| Specificity        | CP27B Polyclonal Antibody detects endogenous levels of protein.   |
| Formulation        | Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.  |
| Source             | Polyclonal, Rabbit,IgG  |
| Purification       | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.   |
| Dilution           | WB 1:500-2000 ELISA 1:5000-20000  |
| Concentration      | 1 mg/ml   |
| Purity             | ≥90%  |
| Storage Stability  | -20°C/1 year  |
| Synonyms           |   |
| Observed Band      | 55kD  |
| Cell Pathway       | Mitochondrion membrane.   |
| Tissue Specificity | Kidney.   |
| Function           | catalytic activity:Calcidiol + NADPH + O(2) = calcitriol + NADP(+) +<br>H(2)O.,cofactor:Heme group.,disease:Defects in CYP27B1 are a cause of vitamin<br>D-dependent rickets type 1 (VDDR-1) [MIM:264700]; also known as<br>pseudovitamin D deficiency rickets (PDDR). VDDR-1 is an autosomal recessive<br>disease characterized by muscle weakness and early onset of rickets with<br>hypocalcemia.,function:Catalyzes the conversion of 25-hydroxyvitamin D3<br>(25(OH)D) to 1-alpha,25-dihydroxyvitamin D3 (1,25(OH)2D) plays an important<br>role in normal bone growth, calcium metabolism, and tissue<br>differentiation.,pathway:Hormone biosynthesis; cholecalciferol<br>biosynthesis.,similarity:Belongs to the cytochrome P450 family.,tissue<br>specificity:Kidney., |
| Background         | cytochrome P450 family 27 subfamily B member 1(CYP27B1) Homo sapiens<br>This gene encodes a member of the cytochrome P450 superfamily of enzymes.<br>The cytochrome P450 proteins are monooxygenases which catalyze many  |



## UpingBio technology Co.,Ltd

🔇 Tel: 400-999-8863 💌 Email:UpingBio@163.com

Website: www.upingBio.com



|                              | reactions involved in drug metabolism and synthesis of cholesterol, steroids and<br>other lipids. The protein encoded by this gene localizes to the inner mitochondrial<br>membrane where it hydroxylates 25-hydroxyvitamin D3 at the 1alpha position.<br>This reaction synthesizes 1alpha,25-dihydroxyvitamin D3, the active form of<br>vitamin D3, which binds to the vitamin D receptor and regulates calcium<br>metabolism. Thus this enzyme regulates the level of biologically active vitamin D<br>and plays an important role in calcium homeostasis. Mutations in this gene can<br>result in vitamin D-dependent rickets type I. [provided by RefSeq, Jul 2008], |
|------------------------------|--|
| matters needing<br>attention | Avoid repeated freezing and thawing!   |
| Usage suggestions            | This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.  |

## **Products Images**