



CP27B Polyclonal Antibody

Catalog No	YP-Ab-07883
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;ELISA
Gene Name	CYP27B1 CYP1ALPHA CYP27B
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	CP2B;CYP1;CYP1alpha;CYP27B;P450c1;PDDR;VDD1;VDDR;VDDRI;VDR;CP27B_HUMAN;CYP27B1;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;1.14.15.18;cytochrome P450 family 27 subfamily B member 1;cytochrome P450;subfamily XXVIIIB (25-hydroxyvitamin D-1-alpha-hydroxylase);polypeptide 1;family 27;subfamily B;VDDR I;1alpha(OH)ase;25-Hydroxyvitamin D3 1alpha-hydroxylase;CP27B;CYP27B1 CYP1ALPHA CYP27B;25-hydroxyvitamin D-1 alpha hydroxylase;mitochondrial (EC 1.14.13.13) (25-OHD-1 alpha-hydroxylase) (25-hydroxyvitamin D(3) 1-alpha-hydroxylase) (VD3 1A hydroxylase) (Calcidiol 1-monooxygenase) (Cytoc
Observed Band	57 kDa
Calculated Molecular Weight	57 kDa
Cell Pathway	Mitochondrion membrane.
Tissue Specificity	Kidney.



Function

catalytic activity:Calcidiol + NADPH + O(2) = calcitriol + NADP(+) + H(2)O.,
cofactor:Heme group.,disease:Defects in CYP27B1 are a cause of vitamin D-
dependent rickets type 1 (VDDR-1) [MIM:264700]; also known as pseudovitamin
D deficiency rickets (PDDR). VDDR-1 is an autosomal recessive disease
characterized by muscle weakness and early onset of rickets with hypocalcemia.,
function: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.,pathway:Hormone
biosynthesis; cholecalciferol biosynthesis.,similarity:Belongs to the cytochrome
P450 family.,tissue specificity:Kidney.,

Background

cytochrome P450 family 27 subfamily B member 1(CYP27B1) Homo sapiens
This gene encodes 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. The protein encoded by this gene localizes to the inner
mitochondrial membrane where it hydroxylates 25-hydroxyvitamin D3 at the
1alpha position. This reaction synthesizes 1alpha,25-dihydroxyvitamin D3, the
active form of vitamin D3, 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. [provided by RefSeq, Jul
2008],

matters needing 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