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# CYP27B1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21674b

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | O15528 |
| **Reactivity** | Human, Rat, Mouse |
| **Host** | Rabbit |
| **Clonality** | polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB31024 |
| **Calculated MW** | 56504 |

## Additional Information

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| **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 XXVIIB 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 E~~Use at an assay dependent concentration. |
| **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. |

## Protein Information

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| **Name** | CYP27B1 |
| **Synonyms** | CYP1ALPHA, CYP27B |

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| **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 C1alpha- position to form the hormonally active form of vitamin D3, 1alpha,25- dihydroxyvitamin D3/calcitriol that acts via the vitamin D receptor (VDR) (PubMed:10518789, PubMed:10566658, PubMed:12050193, PubMed:22862690, PubMed:9486994). Has 1alpha-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. |

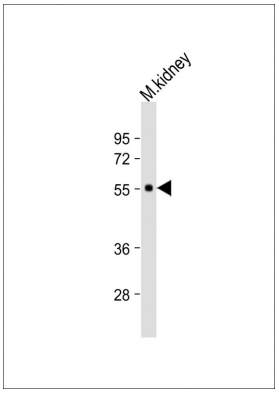
## Background

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.

## 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.


## Images




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