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CYP27B1 Antibody (C-term)

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8669b

Specification

CYP27B1 Antibody (C-term) - Product Information

Application	**WB,E**
Primary Accession	O15528
Reactivity	**Human**
Predicted	**Human**
Host	**Mouse**
Clonality	**monoclonal**
Isotype	**IgG1,κ**
Calculated MW	**56504**

CYP27B1 Antibody (C-term) - Additional Information

Gene ID 1594

Other Names
25-hydroxyvitamin D-1 alpha hydroxylase, mitochondrial, 1.14.13.13, 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 mouse immunized with a KLH conjugated synthetic peptide between 477-508 amino acids from the C-terminal region of human CYP27B1.

Dilution
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

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 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.

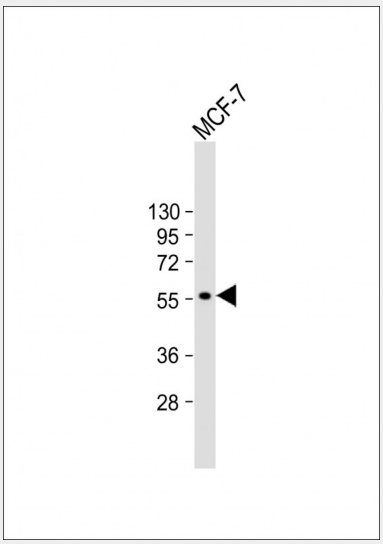
Tissue Location
Kidney.

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 Cytomety
- Cell Culture

CYP27B1 Antibody (C-term) - Images



Anti-CYP27B1 Antibody (C-term) at 1:1000 dilution + MCF-7 whole cell lysate Lysates/proteins at

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20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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.