

Product datasheet

Anti-CYP27B1 antibody [EPR20271] ab206655

Recombinant RabMAb

[10 References](#) [9 Images](#)

Overview

Product name	Anti-CYP27B1 antibody [EPR20271]
Description	Rabbit monoclonal [EPR20271] to CYP27B1
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, IP
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HaCaT, MeWo and HeLa whole cell lysates; Human fetal heart, fetal brain, fetal kidney and fetal liver lysates; Mouse heart and kidney lysates; Rat heart, kidney and brain lysates; Recombinant CYP27B1 protein. IHC-P: Human, mouse and rat kidney tissues. IP: MeWo whole cell lysate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20271

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab206655 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 45, 70 kDa (predicted molecular weight: 57 kDa).
IHC-P		1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IP		1/40.

Target

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.

Tissue specificity

Kidney.

Pathway

Hormone biosynthesis; cholecalciferol biosynthesis.

Involvement in disease

Defects in CYP27B1 are the cause of rickets vitamin D-dependent type 1A (VDDR1A) [MIM:264700]; also known as pseudovitamin D deficiency rickets (PDDR). A disorder caused by a selective deficiency of the active form of vitamin D (1,25-dihydroxyvitamin D3) and resulting in defective bone mineralization and clinical features of rickets.

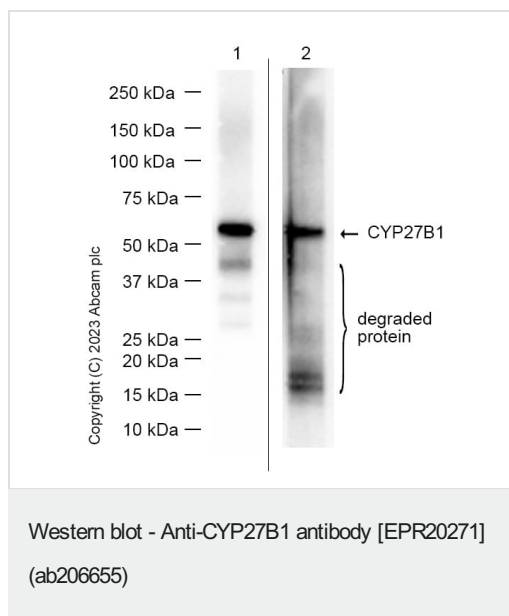
Sequence similarities

Belongs to the cytochrome P450 family.

Cellular localization

Mitochondrion membrane.

Images



Lane 1 : Anti-CYP27B1 antibody [EPR20271] (ab206655) at 1/1000 dilution

Lane 2 : Anti-His-tag antibody at 1/200 dilution

All lanes : Recombinant CYP27B1 protein

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

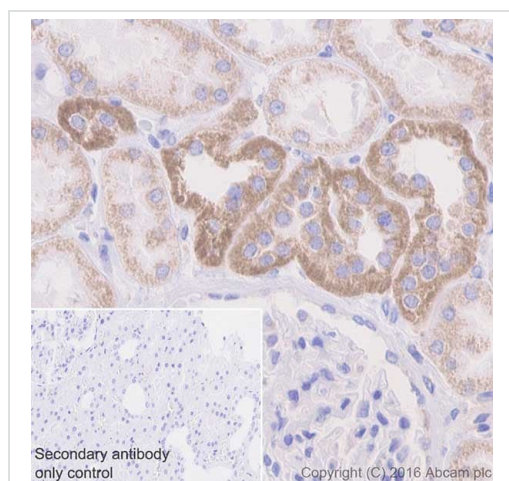
Predicted band size: 57 kDa

Observed band size: 56 kDa

Exposure time: 3 seconds

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM/TBST.

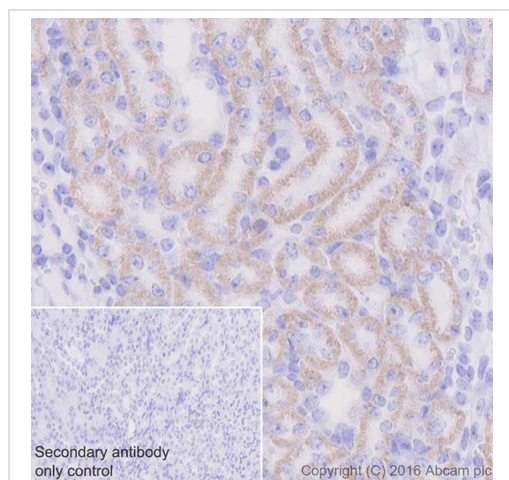


Immunohistochemical analysis of paraffin-embedded human kidney tissue labeling CYP27B1 with ab206655 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Strong cytoplasmic staining on distal convoluted tubules of human kidney. Weaker cytoplasmic staining on proximal convoluted tubules [PMID: 23416105] [PMID: 12050281].

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



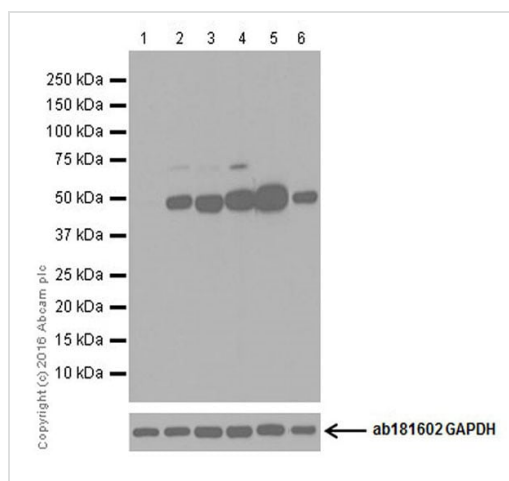
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CYP27B1 antibody [EPR20271] (ab206655)

Immunohistochemical analysis of paraffin-embedded mouse kidney tissue labeling CYP27B1 with ab206655 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Cytoplasmic staining on mouse kidney tubules [PMID: 23416105] [PMID: 12050281].

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-CYP27B1 antibody [EPR20271] (ab206655)

All lanes : Anti-CYP27B1 antibody [EPR20271] (ab206655) at 1/2000 dilution

Lane 1 : THP-1 (Human monocytic leukemia cell line) whole cell lysate

Lane 2 : HaCaT (Human keratinocyte cell line) whole cell lysate

Lane 3 : MeWo (Human malignant melanoma cell line) whole cell lysate

Lane 4 : HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate

Lane 5 : Human fetal heart lysate

Lane 6 : Human fetal brain lysate

Lysates/proteins at 20 µg per lane.

Secondary

Lanes 1-4 : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Lanes 5-6 : VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) at 1/4000 dilution

Predicted band size: 57 kDa

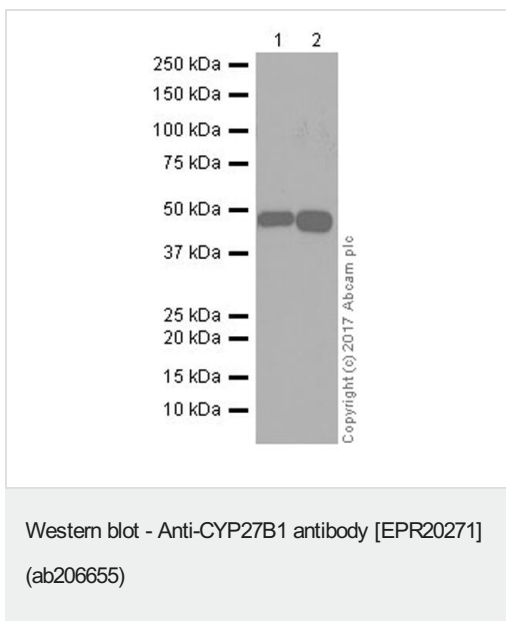
Observed band size: 45,70 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

THP-1 is a negative control (PMID: 16930540).

The molecular weight observed is consistent with what has been described in the literature (PMID: 16061850).



All lanes : Anti-CYP27B1 antibody [EPR20271] (ab206655) at 1/1000 dilution

Lane 1 : Human fetal kidney lysate

Lane 2 : Human fetal liver lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : VeriBlot for IP Detection Reagent (HRP) (**ab131366**) at 1/4000 dilution

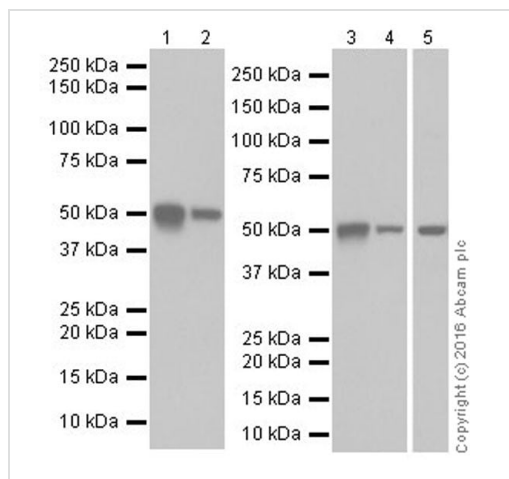
Predicted band size: 57 kDa

Observed band size: 45 kDa

Exposure time: 30 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 16061850).



Western blot - Anti-CYP27B1 antibody [EPR20271]
(ab206655)

All lanes : Anti-CYP27B1 antibody [EPR20271] (ab206655) at 1/1000 dilution

Lane 1 : Mouse heart lysate

Lane 2 : Mouse kidney lysate

Lane 3 : Rat heart lysate

Lane 4 : Rat kidney lysate

Lane 5 : Rat brain lysate

Lysates/proteins at 10 µg per lane.

Secondary

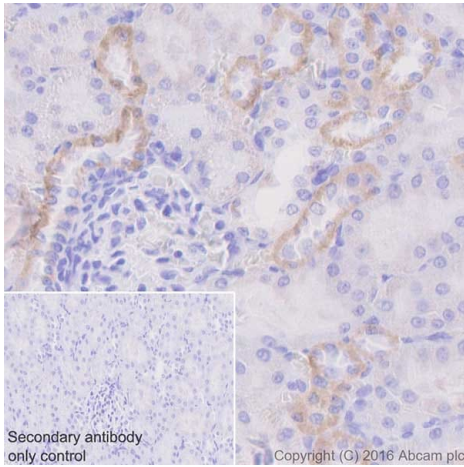
All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Predicted band size: 57 kDa

Observed band size: 57 kDa

Blocking/Dilution buffer: 5% NFDm/TBST.

Exposure times: Lane 1, 2, 3 and 4: 1 second; Lane 5: 3 seconds.



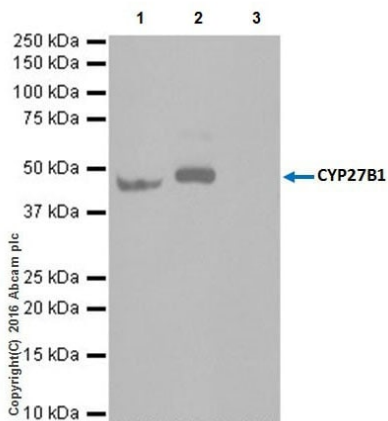
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CYP27B1 antibody [EPR20271] (ab206655)

Immunohistochemical analysis of paraffin-embedded rat kidney tissue labeling CYP27B1 with ab206655 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Cytoplasmic staining on rat kidney tubules [PMID: 23416105] [PMID: 12050281].

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-CYP27B1 antibody [EPR20271] (ab206655)

CYP27B1 was immunoprecipitated from 0.35 mg of MeWo (Human malignant melanoma cell line) whole cell lysate with ab206655 at 1/40 dilution. Western blot was performed from the immunoprecipitate using ab206655 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/10000 dilution.

Lane 1: MeWo whole cell lysate, 10 µg (Input).

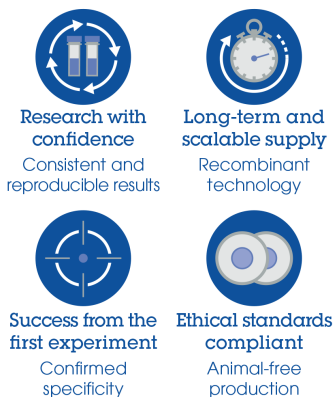
Lane 2: ab206655 IP in MeWo whole cell lysate.

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab206655 in MeWo whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 30 seconds.

Why choose a recombinant antibody?



Anti-CYP27B1 antibody [EPR20271] (ab206655)

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