

Product datasheet

Anti-CYP27B1 antibody [EPR20271] ab206655

Recombinant RabMAb

6 References 8 Images

Overview

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

Properties

|                             |  |
|-----------------------------|--|
| <b>Form</b>                 | Liquid   |
| <b>Storage instructions</b> | 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.  |
| <b>Storage buffer</b>       | <p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p> |
| <b>Purity</b>               | Protein A purified   |
| <b>Clonality</b>            | Monoclonal   |
| <b>Clone number</b>         | EPR20271   |

Isotype

IgG

## Applications

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### 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

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### 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.

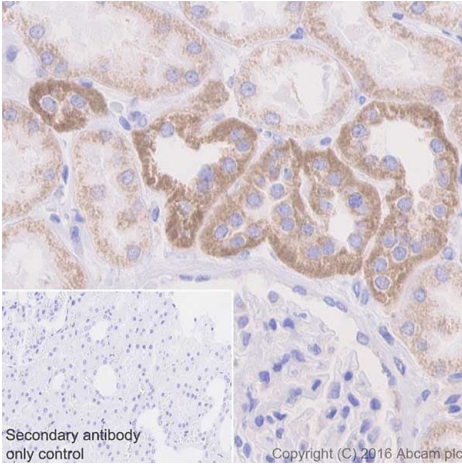
### Cellular localization

Mitochondrion membrane.

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## Images

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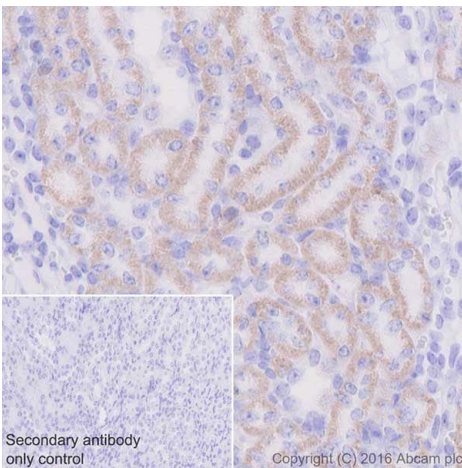
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CYP27B1 antibody [EPR20271] (ab206655)

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.



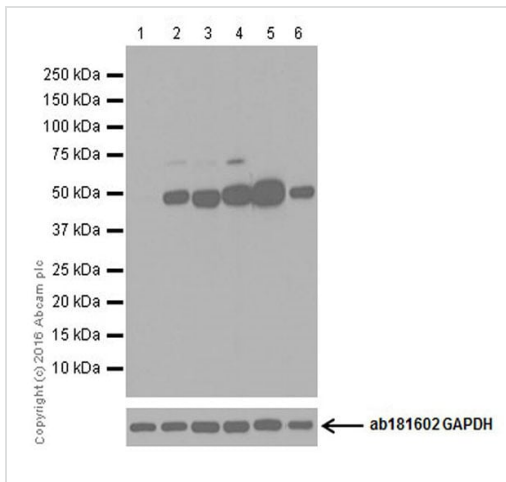
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CYP27B1 antibody [EPR20271] (ab206655)

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

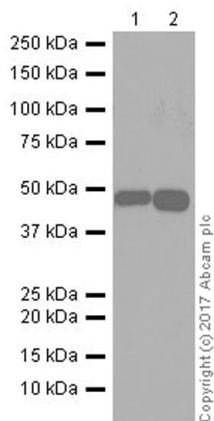
**Observed band size:** 45,70 kDa

**Exposure time:** 3 minutes

Blocking/Dilution buffer: 5% NFD/MTBST.

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

The 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 :** 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

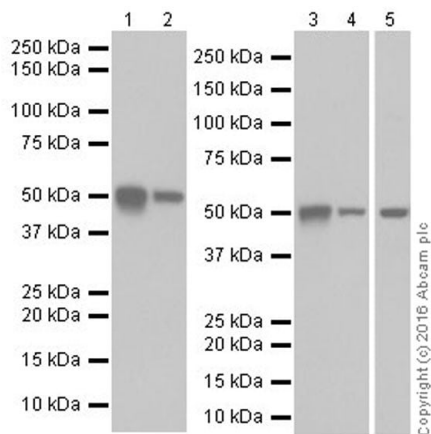
**Predicted band size:** 57 kDa

**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**

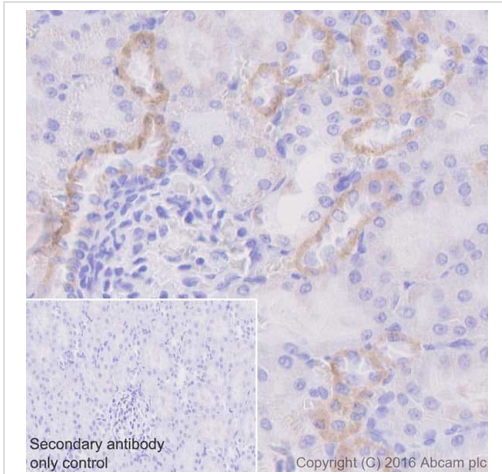
**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

**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.



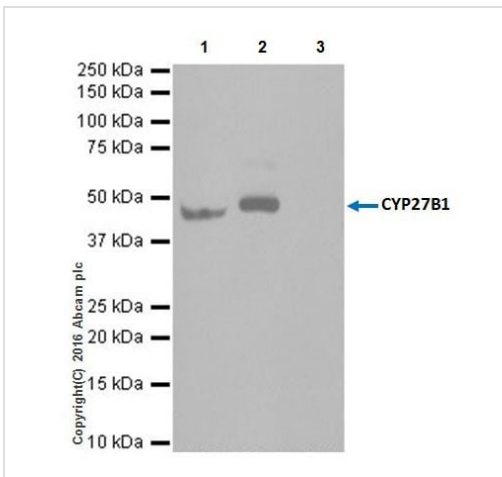
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CYP27B1 antibody [EPR20271] (ab206655)

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?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-CYP27B1 antibody [EPR20271] (ab206655)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

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