

## Product datasheet

### Anti-C11B2/CYP11B2 antibody [EPR10495] ab167413

Recombinant **RabMAb**

[3 References](#) [5 Images](#)

#### Overview

<b>Product name</b>	Anti-C11B2/CYP11B2 antibody [EPR10495]
<b>Description</b>	Rabbit monoclonal [EPR10495] to C11B2/CYP11B2
<b>Host species</b>	Rabbit
<b>Specificity</b>	The immunogen used for this product shares 5 consecutive identical amino acids with family members like CYP11B1, CYP3A4, CYP3A43, CYP3A5, CYP3A7. Cross-reactivity with these proteins have not been confirmed experimentally.
<b>Tested applications</b>	<b>Suitable for:</b> WB, IP <b>Unsuitable for:</b> Flow Cyt or ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide within Human C11B2/CYP11B2 aa 300-400. The exact sequence is proprietary. Database link: <a href="#">P19099</a>
<b>Positive control</b>	IP: MCF7 cell lysates WB: Human adrenal gland, NIH:OVCAR-3 and MCF7 cell lysates, human tissue lysates;
<b>General notes</b>	This product is a recombinant monoclonal antibody, which offers several advantages including: <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> For more information <a href="#">see here</a> . 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> .

#### 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.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide

	Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.5% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR10495
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab167413 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
<b>WB</b>		1/1000 - 1/10000. Predicted molecular weight: 58 kDa.
<b>IP</b>		1/10 - 1/100.

**Application notes** Is unsuitable for Flow Cyt or ICC/IF.

## Target

**Function** Preferentially catalyzes the conversion of 11-deoxycorticosterone to aldosterone via corticosterone and 18-hydroxycorticosterone.

**Involvement in disease** Defects in CYP11B2 are the cause of corticosterone methyloxidase type 1 deficiency (CMO-1 deficiency) [MIM:203400]; also known as aldosterone deficiency due to defect in 18-hydroxylase or aldosterone deficiency I. CMO-1 deficiency is an autosomal recessive disorder of aldosterone biosynthesis. There are two biochemically different forms of selective aldosterone deficiency be termed corticosterone methyloxidase (CMO) deficiency type 1 and type 2. In CMO-1 deficiency, aldosterone is undetectable in plasma, while its immediate precursor, 18-hydroxycorticosterone, is low or normal.

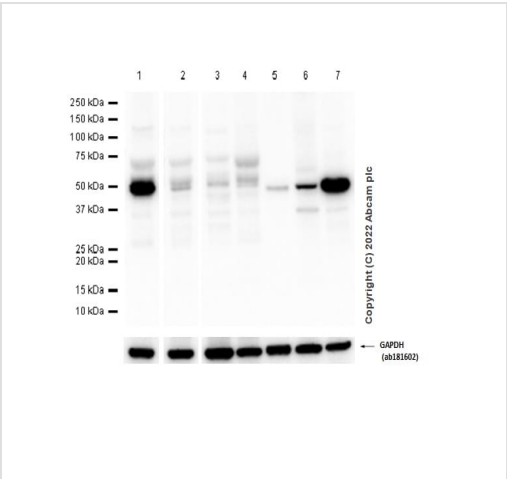
Defects in CYP11B2 are the cause of corticosterone methyloxidase type 2 deficiency (CMO-2 deficiency) [MIM:610600]. CMO-2 is an autosomal recessive disorder of aldosterone biosynthesis. In CMO-2 deficiency, aldosterone can be low or normal, but at the expense of increased secretion of 18-hydroxycorticosterone. Consequently, patients have a greatly increased ratio of 18-hydroxycorticosterone to aldosterone and a low ratio of corticosterone to 18-hydroxycorticosterone in serum.

Defects in CYP11B2 are a cause of familial hyperaldosteronism type 1 (FH1) [MIM:103900]. It is a disorder characterized by hypertension, variable hyperaldosteronism, and abnormal adrenal steroid production, including 18-oxocortisol and 18-hydroxycortisol. There is significant phenotypic heterogeneity, and some individuals never develop hypertension. Note=The molecular defect causing hyperaldosteronism familial type 1 is an anti-Lepore-type fusion of the CYP11B1 and CYP11B2 genes. The hybrid gene has the promoting part of CYP11B1, ACTH-sensitive, and the coding part of CYP11B2.

**Sequence similarities** Belongs to the cytochrome P450 family.

**Cellular localization** Mitochondrion membrane.

## Images



Western blot - Anti-C11B2/CYP11B2 antibody [EPR10495] (ab167413)

**All lanes :** Anti-C11B2/CYP11B2 antibody [EPR10495] (ab167413) at 1/1000 dilution

**Lane 1 :** Human adrenal gland tissue lysate

**Lane 2 :** Human kidney tissue lysate

**Lane 3 :** Human heart tissue lysate

**Lane 4 :** Human lung tissue lysate

**Lane 5 :** Human liver tissue lysate

**Lane 6 :** HEK-293 (Human embryonic kidney epithelial cell) whole cell lysate

**Lane 7 :** HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate

Lysates/proteins at 20 µg per lane.

**Secondary**

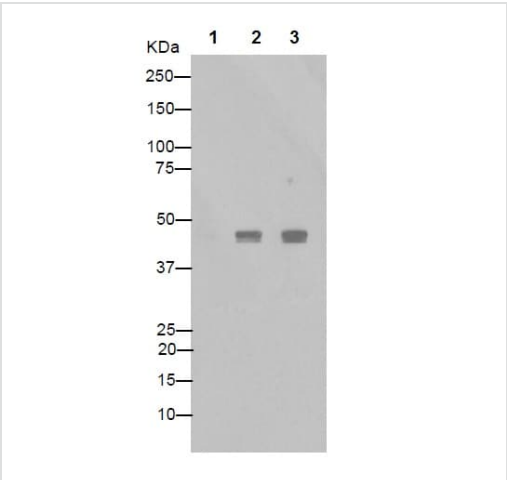
**All lanes :** Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

**Predicted band size:** 58 kDa

**Observed band size:** 48 kDa

**Exposure time:** 20 seconds

**Blocking and diluting buffer and concentration:** 5% NFDM/TBST



Western blot - Anti-C11B2/CYP11B2 antibody [EPR10495] (ab167413)

**All lanes :** Anti-C11B2/CYP11B2 antibody [EPR10495] (ab167413) at 1/1000 dilution

**Lane 1 :** MCF-7 cell lysate with Human C11B2/CYP11B2 peptide

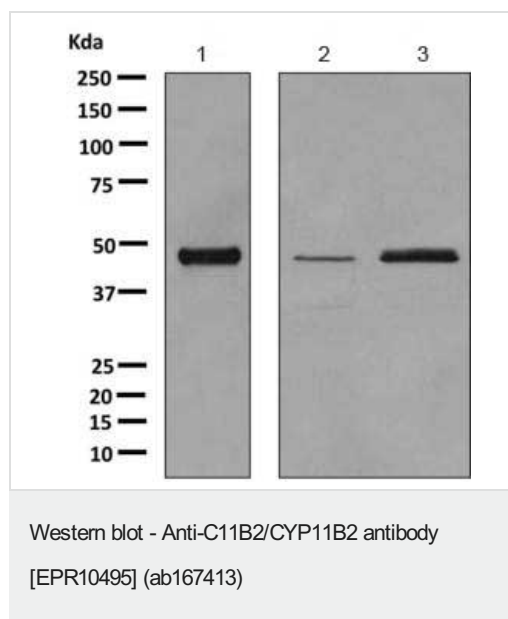
**Lane 2 :** MCF-7 cell lysate with Human C11B1/CYP11B2 peptide

**Lane 3 :** MCF-7 cell lysate with no blocking peptide

**Predicted band size:** 58 kDa

**Observed band size:** 48 kDa

**Exposure time:** 3 seconds



**All lanes :** Anti-C11B2/CYP11B2 antibody [EPR10495] (ab167413) at 1/1000 dilution

**Lane 1 :** Human adrenal gland tissue lysate

**Lane 2 :** NIH:OVCAR-3 cell lysate

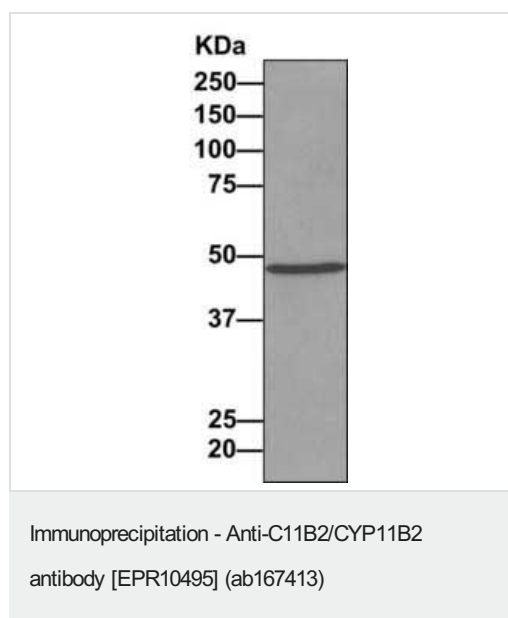
**Lane 3 :** MCF7 cell lysate

Lysates/proteins at 10 µg per lane.

### Secondary

**All lanes :** Goat anti-rabbit HRP conjugated antibody at 1/2000 dilution

**Predicted band size:** 58 kDa



Detection of C11B2/CYP11B2 by Western Blot of Immunoprecipitate. MCF7 cell lysate immunoprecipitated using ab167413 at 1/10 dilution.

### 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-C11B2/CYP11B2 antibody [EPR10495]  
(ab167413)

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

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