

## Product datasheet

### Anti-FABP4 antibody [EPR3579] ab92501

Recombinant RabMAb

★★★★☆ **3 Abreviews** **78 References** [9 Images](#)

#### Overview

<b>Product name</b>	Anti-FABP4 antibody [EPR3579]
<b>Description</b>	Rabbit monoclonal [EPR3579] to FABP4
<b>Host species</b>	Rabbit
<b>Specificity</b>	This antibody may cross-react with FABP, FABP3 and FABP9 based on the blast alignments. The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
<b>Tested applications</b>	<b>Suitable for:</b> WB, ICC/IF, IHC-P, mIHC
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: Mouse brown adipose tissue, Mouse heart, Mouse kidney, Mouse lung, Human adipose tissue, Rat adipose tissue and fetal heart lysates; ICC/IF: Adipocytes and 3T3-L1 cells; IHC-P: human breast tissue. mIHC: Human parathyroid gland and breast tissues.
<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. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
<b>Purity</b>	Protein A purified

<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR3579
<b>Isotype</b>	IgG

## Applications

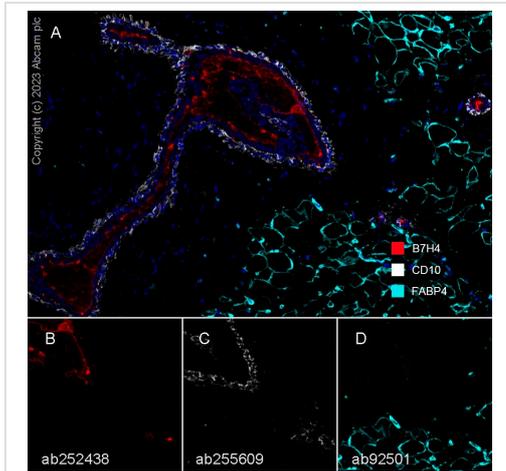
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab92501 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
<b>WB</b>	★★★★★ (2)	1/1000 - 1/5000. Detects a band of approximately 15 kDa (predicted molecular weight: 15 kDa).
<b>ICC/IF</b>		1/50. <b>For unpurified use at 1/1000.</b>
<b>IHC-P</b>		1/16000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. See <b><u>IHC antigen retrieval protocols</u></b> .  The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
<b>mlHC</b>		1/10000.

## Target

<b>Function</b>	Lipid transport protein in adipocytes. Binds both long chain fatty acids and retinoic acid. Delivers long-chain fatty acids and retinoic acid to their cognate receptors in the nucleus.
<b>Sequence similarities</b>	Belongs to the calycin superfamily. Fatty-acid binding protein (FABP) family.
<b>Domain</b>	Forms a beta-barrel structure that accommodates hydrophobic ligands in its interior.
<b>Cellular localization</b>	Cytoplasm. Nucleus. Depending on the nature of the ligand, a conformation change exposes a nuclear localization motif and the protein is transported into the nucleus. Subject to constitutive nuclear export.

## Images



Multiplex immunohistochemistry - Anti-FABP4 antibody [EPR3579] (ab92501)

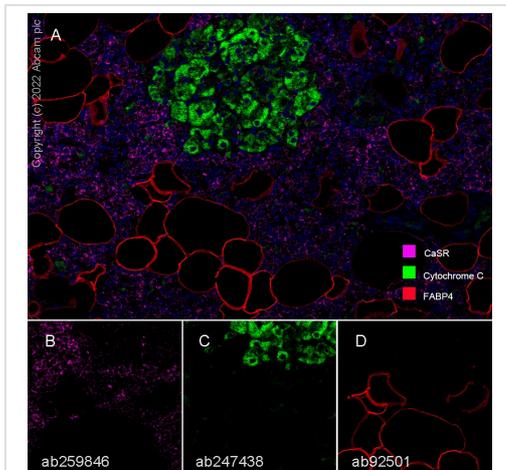
Fluorescence multiplex immunohistochemical analysis of the human breast (Formalin/PFA-fixed paraffin-embedded sections).

Panel A: merged staining of anti-B7H4 (**ab252438**, red; Opal™690), anti-CD10 (**ab255609**, gray; Opal™520) and anti-FABP4 (ab92501, cyan; Opal™570) on human breast. Panel B: anti-B7H4 stained on glandular lumens. Panel C: anti-CD10 stained on myoepithelial cells. Panel D: anti-FABP4 stained on adipocytes. Opal Polymer HRP Ms + Rb was used as a secondary antibody.

The section was incubated in three rounds of staining: in the order of **ab252438** at 1/100 dilution (4.69 µg/ml), **ab255609** at 1/1000 dilution (0.615 µg/ml) and ab92501 at 1/10000 dilution (0.047 µg/ml) for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins. DAPI (blue) was used as a nuclear counter stain.



Multiplex immunohistochemistry - Anti-FABP4 antibody [EPR3579] (ab92501)

Fluorescence multiplex immunohistochemical analysis of the Human parathyroid gland (Formalin/PFA-fixed paraffin-embedded sections).

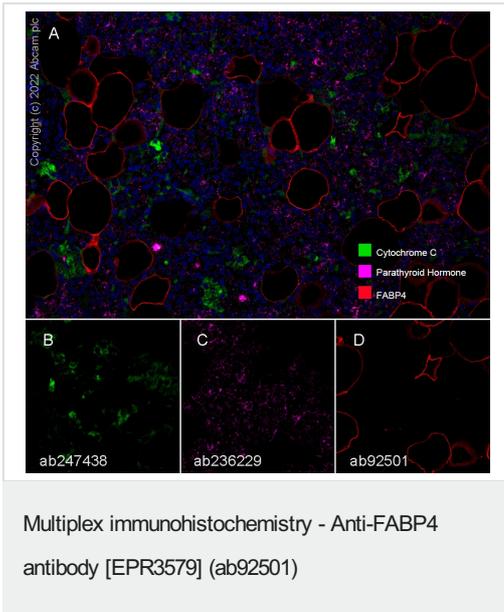
Panel A: merged staining of anti-CaSR (**ab259846**, magenta; Opal™690), anti-Cytochrome C (**ab247438**, green; Opal™520) and anti-FABP4 (ab92501, red; Opal™570) on human parathyroid gland. Panel B: anti-CaSR stained on parathyroid chief cells. Panel C: anti-Cytochrome C stained on parathyroid oxyphil cells. Panel D: anti-FABP4 stained on adipocytes. Opal Polymer HRP Ms + Rb was used as a secondary antibody.

The section was incubated in three rounds of staining: in the order of **ab259846** at 1/5000 dilution (0.103 µg/ml), **ab247438** at 1/5000 dilution (0.195 µg/ml), and ab92501 at 1/10000 dilution (0.047

µg/ml) for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins. DAPI (blue) was used as a nuclear counter stain.



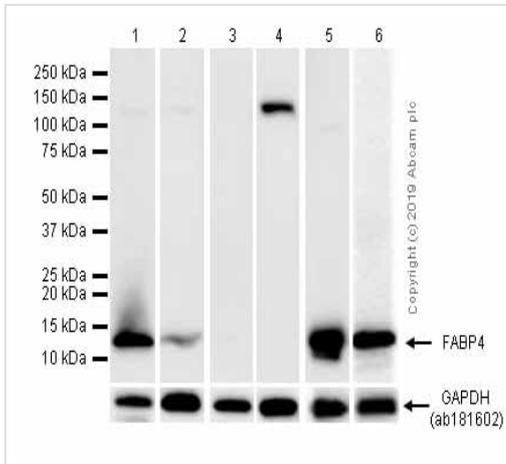
Fluorescence multiplex immunohistochemical analysis of the human parathyroid gland (Formalin/PFA-fixed paraffin-embedded sections).

Panel A: merged staining of anti-Parathyroid Hormone (**ab236229**, magenta; Opal™690), anti-Cytochrome C (**ab247438**, green; Opal™520) and anti-FABP4 (ab92501, red; Opal™570) on human parathyroid gland. Panel B: anti-Cytochrome C stained on parathyroid oxyphil cells. Panel C: anti-Parathyroid Hormone stained on parathyroid chief cells. Panel D: anti-FABP4 stained on adipocytes. Opal Polymer HRP Ms + Rb was used as a secondary antibody.

The section was incubated in three rounds of staining: in the order of **ab236229** at 1/200 dilution (5.065 µg/ml) for 10 mins, then **ab247438** at 1/5000 dilution (0.195 µg/ml) and ab92501 at 1/10000 dilution (0.047 µg/ml) for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.

Heat mediated antigen retrieval was performed with Citrate buffer (pH 6.0, Epitope Retrieval Solution 1) for 20 mins. DAPI (blue) was used as a nuclear counter stain.



Western blot - Anti-FABP4 antibody [EPR3579] (ab92501)

**All lanes** : Anti-FABP4 antibody [EPR3579] (ab92501) at 1/1000 dilution (Purified)

**Lane 1** : Mouse brown adipose tissue lysates

**Lane 2** : Mouse heart lysates

**Lane 3** : Mouse kidney lysates

**Lane 4** : Mouse lung lysates

**Lane 5** : Human adipose tissue lysates

**Lane 6** : Rat adipose tissue lysates

Lysates/proteins at 20 µg per lane.

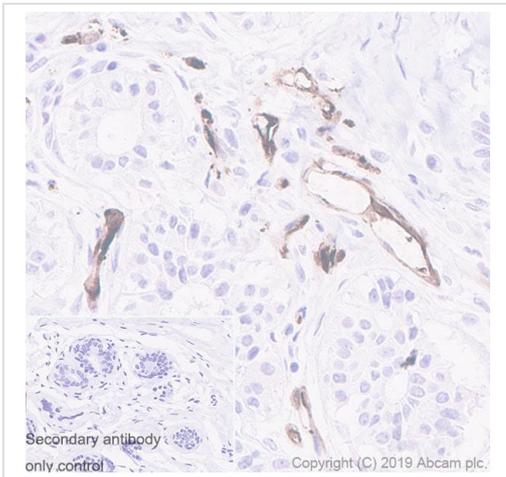
**Secondary**

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

**Predicted band size:** 15 kDa

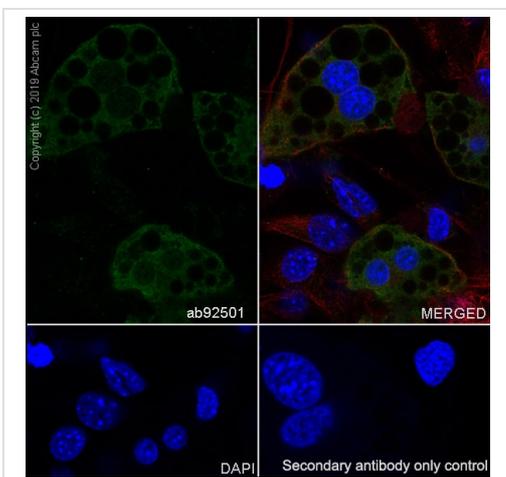
**Observed band size:** 15 kDa

FABP4 is abundantly expressed in adipose tissue and at a lower level in lung, heart, skin, kidney, liver and brain (PMID: 23143994).



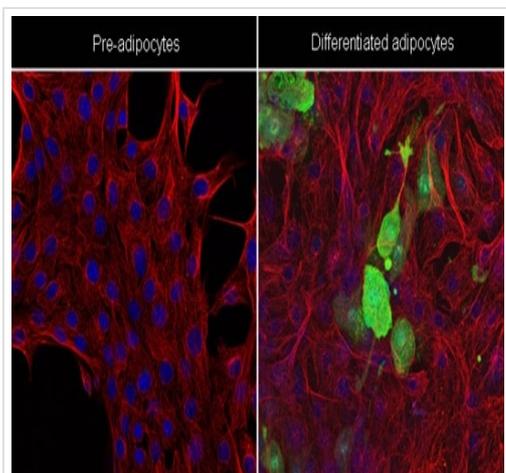
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FABP4 antibody [EPR3579] (ab92501)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast tissue sections labeling FABP4 with Purified ab92501 at 1/16,000 dilution (0.03 µg/ml). Heat mediated antigen retrieval was performed Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



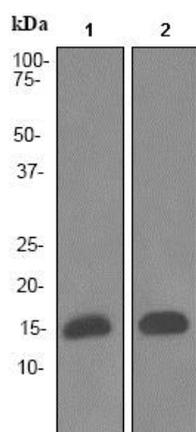
Immunocytochemistry/ Immunofluorescence - Anti-FABP4 antibody [EPR3579] (ab92501)

Immunocytochemistry/ Immunofluorescence analysis of 3T3-L1 (Mouse embryonic fibroblast) differentiated for 6 days cells labeling FABP4 with Purified ab92501 at 1/50 dilution (9.9 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Immunocytochemistry/ Immunofluorescence - Anti-FABP4 antibody [EPR3579] (ab92501)

FABP4 (green) was detected using FABP4 primary antibody (unpurified ab92501; diluted 1/1000). Alpha tubulin (red) was detected using our mouse monoclonal (**ab7291**) antibody. Cells were imaged by confocal microscopy, using z-stack for adipocyte-like cells.



Western blot - Anti-FABP4 antibody [EPR3579] (ab92501)

**All lanes** : Anti-FABP4 antibody [EPR3579] (ab92501) at 1/1000 dilution (unpurified)

**Lane 1** : Human adipose tissue lysate

**Lane 2** : Human fetal heart lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes** : goat anti-rabbit HRP at 1/2000 dilution

**Predicted band size:** 15 kDa

**Observed band size:** 15 kDa

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-FABP4 antibody [EPR3579] (ab92501)

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

**Our Abpromise to you: Quality guaranteed and expert technical support**

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- 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

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

## Terms and conditions

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors