

Product datasheet

# Anti-Folate Binding Protein/FBP antibody [EPR20277] ab221543

**KO VALIDATED** Recombinant RabMAB

4 References 10 Images

Overview

<b>Product name</b>	Anti-Folate Binding Protein/FBP antibody [EPR20277]
<b>Description</b>	Rabbit monoclonal [EPR20277] to Folate Binding Protein/FBP
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<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: Human fetal kidney, mouse kidney, and rat kidney tissue lysates and JAR, and HeLa cell lysates. IHC-P: Human kidney, ovarian cancer and lung cancer tissues; mouse kidney tissue; rat kidney tissue.
<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>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), PBS
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal

**Clone number**                      EPR20277  
**Isotype**                                IgG

## Applications

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**The Abpromise guarantee**        Our [Abpromise guarantee](#) covers the use of ab221543 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 - 1/5000. Detects a band of approximately 38 kDa (predicted molecular weight: 30 kDa).
<b>IHC-P</b>		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

## Target

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**Function**                                Binds to folate and reduced folic acid derivatives and mediates delivery of 5-methyltetrahydrofolate to the interior of cells.

**Tissue specificity**                    Exclusively expressed in tissues of epithelial origin. Expression is increased in malignant tissues. Expressed in kidney, lung and cerebellum.

**Involvement in disease**              Defects in FOLR1 are the cause of neurodegeneration due to cerebral folate transport deficiency (NCFTD) [MIM:613068]. NCFTD is an autosomal recessive disorder resulting from brain-specific folate deficiency early in life. Onset is apparent in late infancy with severe developmental regression, movement disturbances, epilepsy, and leukodystrophy. Note=Recognition and diagnosis of this disorder is critical because folinic acid therapy can reverse the clinical symptoms and improve brain abnormalities and function.

**Sequence similarities**                    Belongs to the folate receptor family.

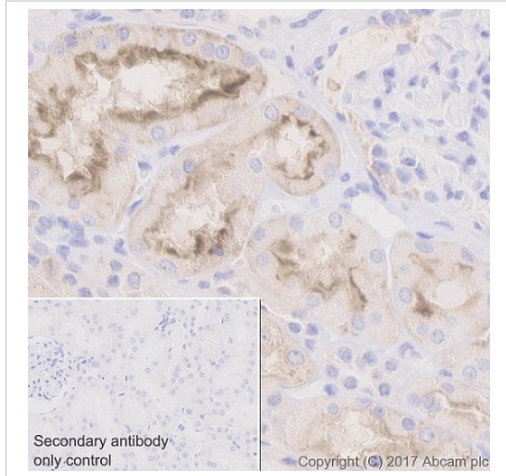
**Post-translational modifications**    Eight disulfide bonds are present.  
The secreted form is derived from the membrane-bound form either by cleavage of the GPI anchor, or/and by proteolysis catalyzed by a metalloprotease.

**Cellular localization**                    Cell membrane. Secreted.

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## Images

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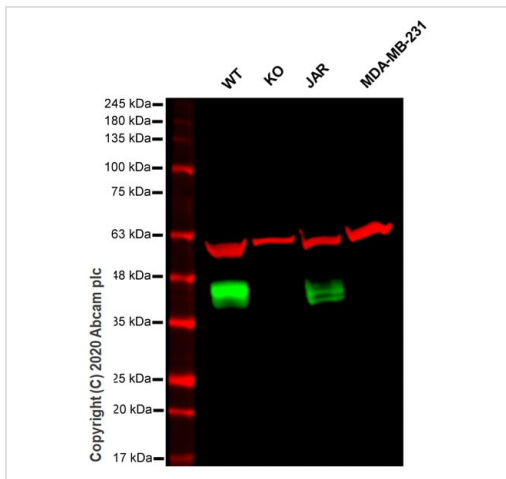


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Folate Binding Protein/FBP antibody [EPR20277] (ab221543)

Immunohistochemical analysis of paraffin-embedded human kidney tissue labeling Folate Binding Protein/FBP with ab221543 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051, ready to use). Cytoplasmic staining on human kidney (PMID: 22204844). 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, ready to use).

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



Western blot - Anti-Folate Binding Protein/FBP antibody [EPR20277] (ab221543)

**All lanes** : Anti-Folate Binding Protein/FBP antibody [EPR20277] (ab221543) at 1/1000 dilution

**Lane 1** : Wild-type HeLa cell lysate

**Lane 2** : FOLR1 knockout HeLa cell lysate

**Lane 3** : JAR cell lysate

**Lane 4** : MDA-MB-231 cell lysate

Lysates/proteins at 20 µg per lane.

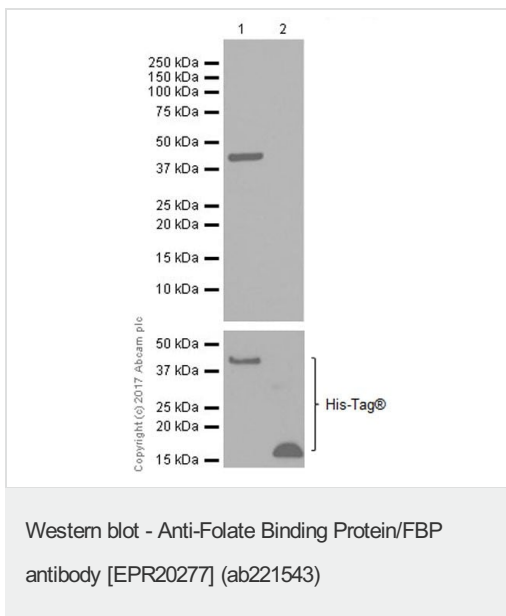
Performed under reducing conditions.

**Predicted band size:** 30 kDa

**Observed band size:** 38 kDa

**Lanes 1-4:** Merged signal (red and green). Green - ab221543 observed at 38 kDa. Red - loading control, ab7291 observed at 52 kDa.

ab221543 Anti-Folate Binding Protein/FBP antibody [EPR20277] was shown to specifically react with Folate Binding Protein/FBP in wild-type HeLa cells. Loss of signal was observed when knockout cell line [ab264921](#) (knockout cell lysate [ab257270](#)) was used. Wild-type and Folate Binding Protein/FBP knockout samples were subjected to SDS-PAGE. ab221543 and Anti-alpha Tubulin antibody [DM1A] - Loading Control ([ab7291](#)) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1 in 10000 dilution for 1 hour at room temperature before imaging.



**All lanes :** Anti-Folate Binding Protein/FBP antibody [EPR20277] (ab221543) at 1/5000 dilution

**Lane 1 :** GST-His-tagged human recombinant FOLR1 (aa 25-160), 20 ng

**Lane 2 :** His-tagged human recombinant FOLR2 (aa 24-154), 20 ng

#### Secondary

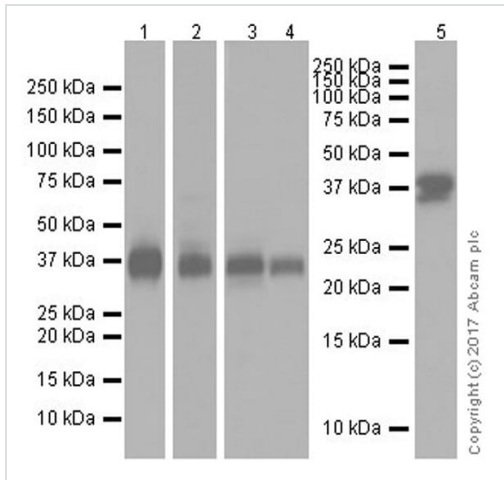
**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

**Predicted band size:** 30 kDa

**Observed band size:** 40 kDa

Exposure time:

Lanes 1-2: 5 seconds



Western blot - Anti-Folate Binding Protein/FBP antibody [EPR20277] (ab221543)

**All lanes** : Anti-Folate Binding Protein/FBP antibody [EPR20277] (ab221543) at 1/1000 dilution

**Lane 1** : JAR (human placenta choriocarcinoma epithelial cells) whole cell lysate at 20 µg

**Lane 2** : Human fetal kidney lysate at 20 µg

**Lane 3** : Mouse kidney lysate at 20 µg

**Lane 4** : Rat kidney lysate

**Lane 5** : HeLa (Human cervix adenocarcinoma epithelial cells) whole cell lysate at 10 µg

### Secondary

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

**Predicted band size:** 30 kDa

**Observed band size:** 38 kDa

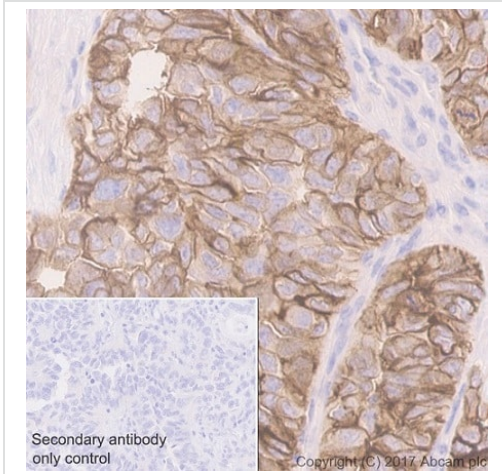
Exposure times:

Lane 1: 10 seconds

Lane 2: 30 seconds

Lanes 3-4: 5 seconds

Lane 5: 3 minutes

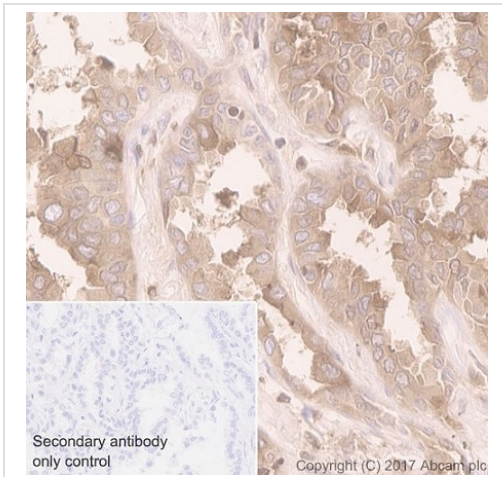


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Folate Binding Protein/FPB antibody [EPR20277] (ab221543)

Immunohistochemical analysis of paraffin-embedded human ovarian cancer tissue labeling Folate Binding Protein/FPB with ab221543 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97501, ready to use). Mainly membranous staining on tumor cells of human ovarian cancer (PMID: 22204844). Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97501, ready to use).

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

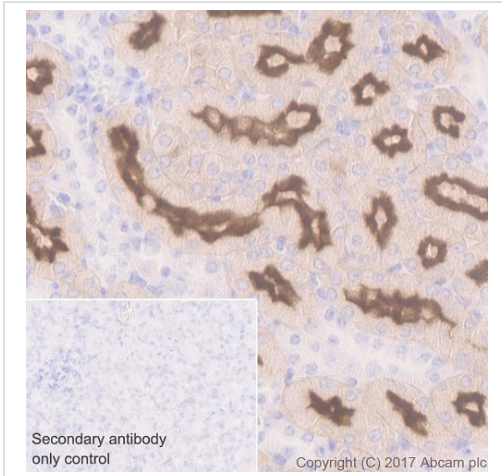


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Folate Binding Protein/FPB antibody [EPR20277] (ab221543)

Immunohistochemical analysis of paraffin-embedded human lung cancer tissue labeling Folate Binding Protein/FPB with ab221543 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97501, ready to use). Cytoplasmic staining on tumor cells of human lung cancer (PMID: 22204844). Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97501, ready to use).

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

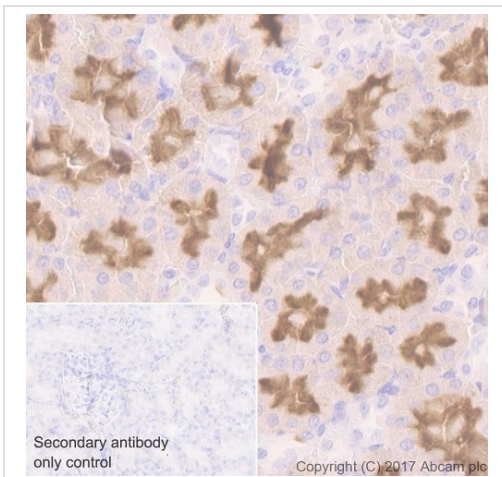


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Folate Binding Protein/FBP antibody [EPR20277] (ab221543)

Immunohistochemical analysis of paraffin-embedded mouse kidney tissue labeling Folate Binding Protein/FBP with ab221543 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97501, ready to use). Positive staining on mouse kidney (PMID: 22204844). Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97501, ready to use).

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

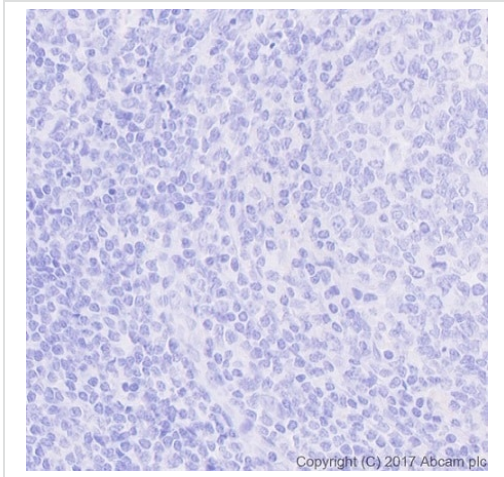


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Folate Binding Protein/FBP antibody [EPR20277] (ab221543)

Immunohistochemical analysis of paraffin-embedded rat kidney tissue labeling Folate Binding Protein/FBP with ab221543 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97501, ready to use). Positive staining on rat kidney (PMID: 22204844). Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97501, ready to use).

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







Negative control:

Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling Folate Binding Protein/FBP with ab221543 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97501, ready to use). No staining on human tonsil (PMID: 22547449). Counter stained with Hematoxylin.

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-Folate Binding Protein/FBP antibody [EPR20277] (ab221543)

Why choose a recombinant antibody?

 <p><b>Research with confidence</b> Consistent and reproducible results</p>	 <p><b>Long-term and scalable supply</b> Recombinant technology</p>
 <p><b>Success from the first experiment</b> Confirmed specificity</p>	 <p><b>Ethical standards compliant</b> Animal-free production</p>

Anti-Folate Binding Protein/FBP antibody [EPR20277] (ab221543)

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

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