

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

KO VALIDATED

Recombinant

RabMAb

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

Overview

Product name	Anti-Folate Binding Protein/FBP antibody [EPR20277]
Description	Rabbit monoclonal [EPR20277] to Folate Binding Protein/FBP
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	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.
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	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), PBS
Purity	Protein A purified
Clonality	Monoclonal

Clone number EPR20277
Isotype IgG

Applications

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
WB		1/1000 - 1/5000. Detects a band of approximately 38 kDa (predicted molecular weight: 30 kDa).
IHC-P		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target

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.

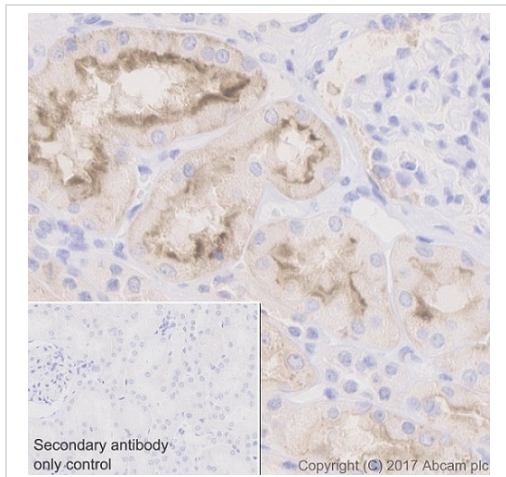
Involvement in disease Defects in FOLR1 are the cause of neurodegeneration due to cerebral folate transport deficiency (NCFTD) [MIM:613068]. NCFTD is an autosomal recessive disorder resulting from brain-specific folate deficiency early in life. Onset is apparent in late infancy with severe developmental 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.

Images

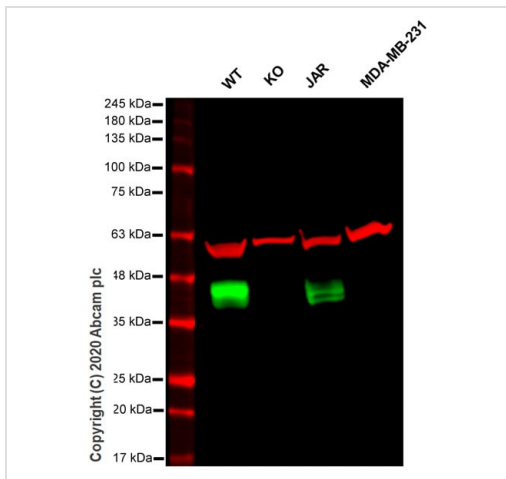


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Folate Binding Protein/FBP antibody [EPR20277] (ab221543)

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.

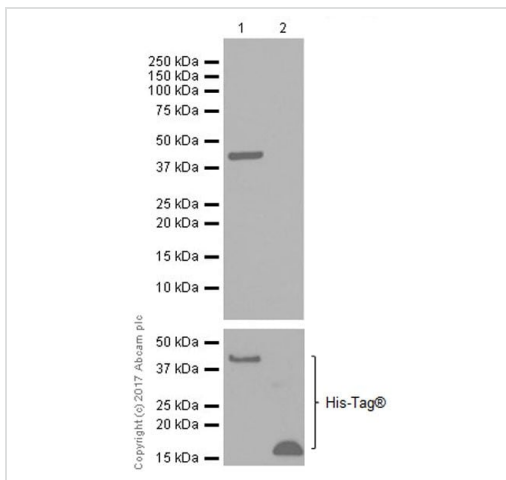
Performed under reducing conditions.

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.



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

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

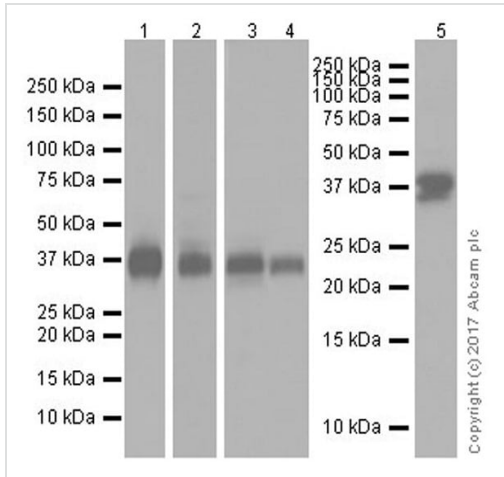
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 30 kDa

Observed band size: 40 kDa

Exposure time:

Lanes 1-2: 5 seconds



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

All lanes : Anti-Folate Binding Protein/GBP 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

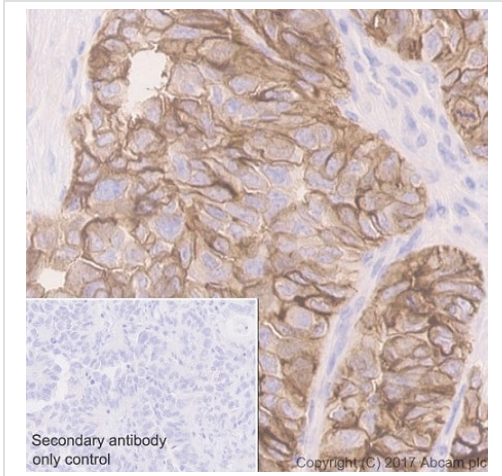
Exposure times:

Lane 1:10 seconds

Lane 2: 30 seconds

Lanes 3-4: 5 seconds

Lane 5: 3 minutes

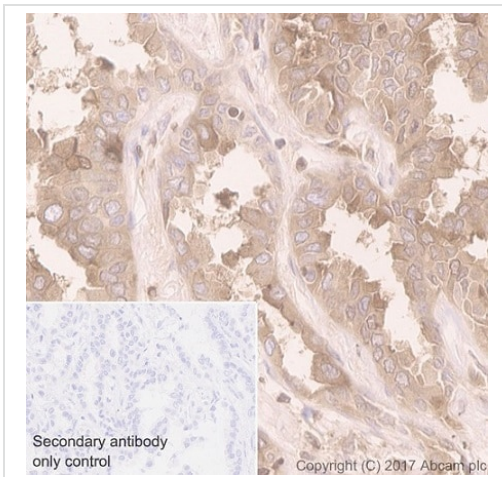


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Folate Binding Protein/FPB antibody [EPR20277] (ab221543)

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.

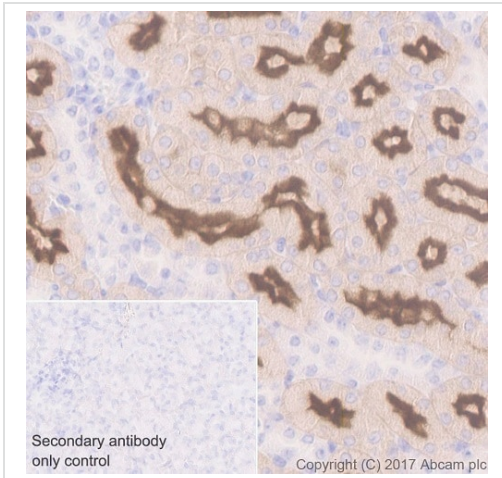


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Folate Binding Protein/FPB antibody [EPR20277] (ab221543)

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.

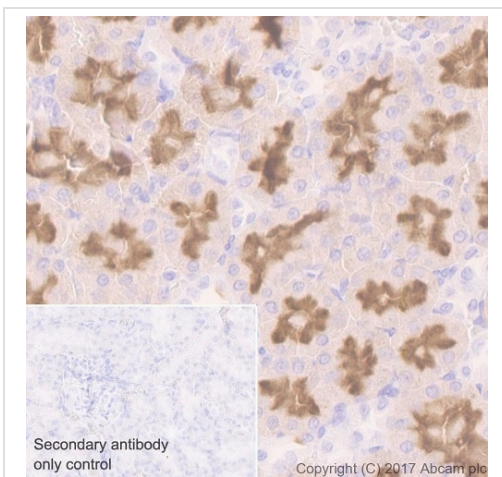


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Folate Binding Protein/FBP antibody [EPR20277] (ab221543)

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.

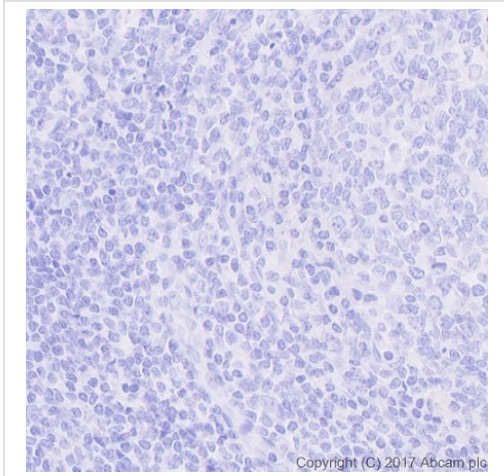


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Folate Binding Protein/FBP antibody [EPR20277] (ab221543)

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

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

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