abcam

ab322459

Anti-Folate Binding Protein/FBP antibody [RM1246]

Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Multiclonal
Immunogens	The exact immunogen used to generate this antibody is proprietary information.
Clone number	RM1246
Purification technique	Affinity purification Protein A
Specificity	Unsuitable for mouse ICC, mouse IP and rat IP.
Concentration	0.527 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Recombinant fragment - Human
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/500
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Mouse
Dilution info	1/1000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	1/1000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Not recommended

Species	Mouse, Rat, Recombinant fragment - Human
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1/500
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Mouse, Recombinant fragment - Human
Dilution info	-
Notes	-

Target data

See full target information FOLR1

Function	Binds to folate and reduced folic acid derivatives and mediates delivery of 5-methyltetrahydrofolate and folate analogs into the interior of cells (PubMed:19074442, PubMed:23851396, PubMed:23934049, PubMed:2527252, PubMed:8033114, PubMed:8567728). Has high affinity for folate and folic acid analogs at neutral pH (PubMed:23851396, PubMed:23934049, PubMed:2527252, PubMed:8033114, PubMed:8567728). Exposure to slightly acidic pH after receptor endocytosis triggers a conformation change that strongly reduces its affinity for folates and mediates their release (PubMed:8567728). Required for normal embryonic development and normal cell proliferation (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What are recombinant multiclonals?
Recombinant multiclonals are a mixture of recombinant antibodies co-expressed from a library of heavy and light chains. They offer several advantages including:

- The sensitivity of polyclonal antibodies by recognising multiple epitopes
- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

View our range of recombinant multiclonal antibodies.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

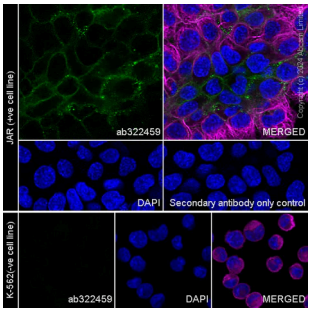
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

14 product images



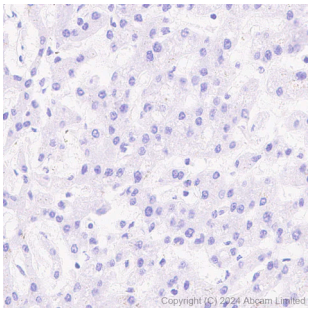
Immunocytochemistry/ Immunofluorescence - Anti-Folate Binding Protein/FBP antibody [RM1246] (ab322459)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized JAR(human placenta choriocarcinoma epithelial cell) cells labelling Folate Binding Protein/FBP with ab322459 at 1/100 (5.27 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green).

Confocal image showing cytoplasmic and membranous staining in JAR cell line (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Negative control: K-562 (PMID: 15899836).
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/ml dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Folate Binding Protein/FBP antibody [RM1246] (ab322459)

Folate Binding Protein/FBP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human liver using rabbit Anti-Folate Binding Protein/FBP antibody

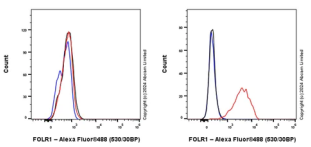
Immunohistochemical analysis of paraffin-embedded Human liver tissue labeling Folate Binding Protein/FBP with ab322459 at 1/500 (1.054 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Negative control: no staining on human liver. The section was incubated with ab322459 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

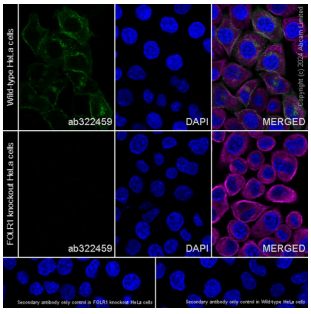


Flow Cytometry - Anti-Folate Binding Protein/FBP antibody [RM1246] (ab322459)

Flow cytometric analysis of Jar (human placenta choriocarcinoma epithelial cell) (Right) / K-562 (human chronic myelogenous leukemia lymphoblast) (Left) cells labelling Folate Binding Protein/FBP with ab322459 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Gated on viable cells.
Negative control: K-562 (PMID: 15899836).



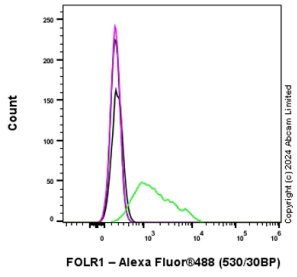
Immunocytochemistry/ Immunofluorescence - Anti-Folate Binding Protein/FBP antibody [RM1246] (ab322459)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized FOLR1 KO HeLa (FOLR1 knockout human cervical adenocarcinoma epithelial cell), ab264921 cells labelling Folate Binding Protein/FBP with ab322459 at 1/100 (5.27 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green).

Confocal image showing membranous and cytoplasmic staining in wildtype HeLa cells, showing no staining in FOLR1 knockout HeLa cells (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue).
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/ml dilution.

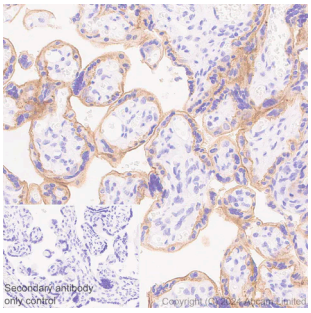


Flow Cytometry - Anti-Folate Binding Protein/FBP antibody [RM1246] (ab322459)

Flow cytometric analysis of FOLR1 KO HeLa (human knockout cervical adenocarcinoma epithelial cell, Magenta) / Parental HeLa, Green) cells labelling Folate Binding Protein/FBP with ab322459 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit IgG monoclonal [EPR25A] - Isotype Control (Alexa Fluor® 488) (ab199091) (Black) and Grey isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Gated on viable cells.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Folate Binding Protein/FBP antibody [RM1246] (ab322459)

Immunohistochemical analysis of paraffin-embedded Human placenta tissue labeling Folate Binding Protein/FBP with ab322459 at 1/500 (1.054 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

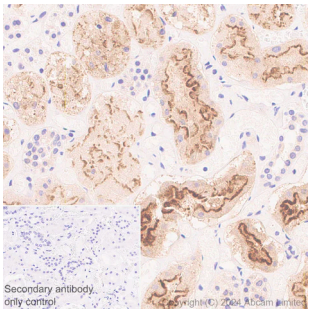
Positive staining on human placenta. The section was incubated with ab322459 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Folate Binding Protein/FBP antibody [RM1246] (ab322459)

Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling Folate Binding Protein/FBP with ab322459 at 1/500 (1.054 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

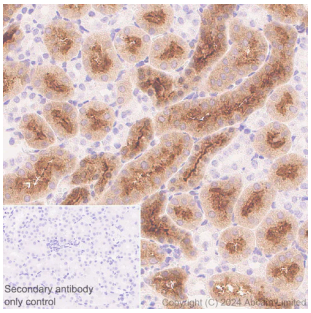
Positive staining on human kidney. The section was incubated with ab322459 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Folate Binding Protein/FBP antibody [RM1246] (ab322459)

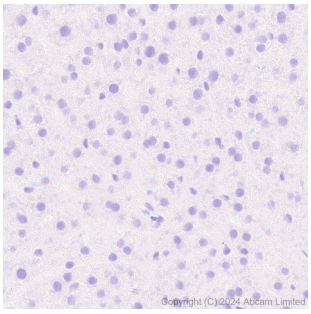
Immunohistochemical analysis of paraffin-embedded Mouse kidney tissue labeling Folate Binding Protein/FBP with ab322459 at 1/1000 (0.527 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on mouse kidney. The section was incubated with ab322459 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Folate Binding Protein/FBP antibody [RM1246] (ab322459)

Folate Binding Protein/FBP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Rat liver using rabbit Anti-Folate Binding Protein/FBP antibody

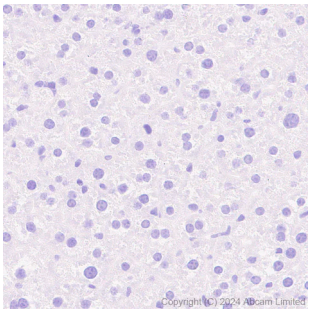
Immunohistochemical analysis of paraffin-embedded Rat liver tissue labeling Folate Binding Protein/FBP with ab322459 at 1/1000 (0.527 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Negative control: no staining on rat liver. The section was incubated with ab322459 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Folate Binding Protein/FBP antibody [RM1246] (ab322459)

Folate Binding Protein/FBP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse liver using rabbit Anti-Folate Binding Protein/FBP antibody

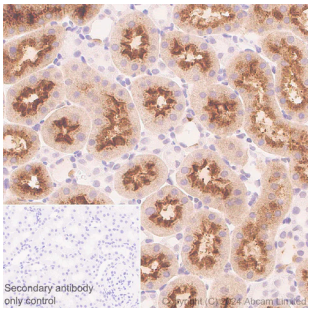
Immunohistochemical analysis of paraffin-embedded Mouse liver tissue labeling Folate Binding Protein/FBP with ab322459 at 1/1000 (0.527 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Negative control: no staining on mouse liver. The section was incubated with ab322459 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Folate Binding Protein/FBP antibody [RM1246] (ab322459)

Immunohistochemical analysis of paraffin-embedded Rat kidney tissue labeling Folate Binding Protein/FBP with ab322459 at 1/1000 (0.527 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

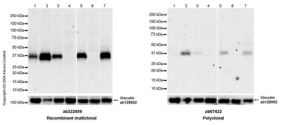
Positive staining on rat kidney. The section was incubated with ab322459 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

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Western blot - Anti-Folate Binding Protein/FBP antibody [RM1246] (ab322459)

Folate Binding Protein/FBP Western blot staining using rabbit Anti-Folate Binding Protein/FBP antibody

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

Negative control: K-562 (PMID: 15899836).

Lysates/proteins at 20 ug per lane.

In Western blot, ab322459 was shown to bind specifically to FOLR1. A band was observed at 37 kDa in wild-type HeLa cell lysates with whereas no signal observed at this size in FOLR1 knockout cell line ab264921(knockout cell lysate ab257270).

In Western blot, Anti-Vinculin antibody [EPR8185] (ab129002) staining at 1/10000 dilution.

All lanes:
Western blot - Anti-Folate Binding Protein/FBP antibody [RM1246] (ab322459) at 1/1000 dilution

Lane 1:
SK-OV-3 (human ovarian cancer epithelial cell) whole cell lysate at 20 µg

Lane 2:
JAR (human placenta choriocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 3:
T-47D (human ductal breast epithelial tumor epithelial cell) whole cell lysate at 20 µg

Lane 4:
K-562 (human chronic myelogenous leukemia lymphoblast) whole cell lysate at 20 µg

Lane 5:
Wild-type HeLa (human cervical adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 6:
Western blot - Human FOLR1 (Folate Binding Protein/FBP) knockout HeLa cell lysate (ab257270) at 20 µg

Lane 7:
Human ovary cancer tissue lysate at 20 µg

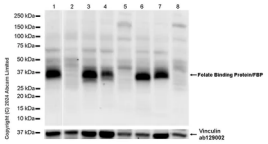
Secondary

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

Performed under reducing conditions.

Observed band size: 37 kDa, 124 kDa

Exposure time: 180s



Western blot - Anti-Folate Binding Protein/FBP antibody [RM1246] (ab322459)

Folate Binding Protein/FBP Western blot staining using rabbit Anti-Folate Binding Protein/FBP antibody

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

Low expression: Liver (PMID: 2768245).

The identity of the higher MW bands at approximately 50-70 kDa are unknown.

In Western blot, Anti-Vinculin antibody [EPR8185] (ab129002) staining at 1/10000 dilution.

All lanes:
Western blot - Anti-Folate Binding Protein/FBP antibody [RM1246] (ab322459) at 1/1000 dilution

Lane 1:
Human ovary cancer tissue lysate at 20 µg

Lane 2:
Human liver tissue lysate at 20 µg

Lane 3:
Mouse kidney tissue lysate at 20 µg

Lane 4:
Mouse placenta tissue lysate at 20 µg

Lane 5:
Mouse liver tissue lysate at 20 µg

Lane 6:
Rat kidney tissue lysate at 20 µg

Lane 7:
Rat placenta tissue lysate at 20 µg

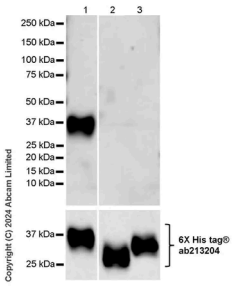
Lane 8:
Rat liver tissue lysate at 20 µg

Secondary

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

Observed band size: 37 kDa, 124 kDa

Exposure time: 15s



Western blot - Anti-Folate Binding Protein/FBP antibody [RM1246] (ab322459)

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

In Western blot, Anti-6X His tag® antibody [EPR20547] - ChIP Grade (ab213204) staining at 1/5000 dilution.

All lanes:
Western blot - Anti-Folate Binding Protein/FBP antibody [RM1246] (ab322459) at 1/1000 dilution

Lane 1:
His-tagged human FOLR1 recombinant protein at 10 ng

Lane 2:
His-tagged human FOLR2 recombinant protein at 10 ng

Lane 3:
His-tagged human FOLR3 recombinant protein at 10 ng

Secondary

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

Observed band size: 37 kDa

Exposure time: 92s

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