abcam

ab230469

Anti-Folate Binding Protein/FBP antibody

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.4 Preservative: 0.09% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Polyclonal
Immunogen	Synthetic Peptide within Human FOLR1 aa 1-100 conjugated to Keyhole Limpet Haemocyanin. The exact immunogen used to generate this antibody is proprietary information. Database link P15328
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	-

Flow Cyt (Intra)

Tested

Species	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

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Folate Binding Protein (FBP) also known as FolR1 protein or FOLR-1 is a significant protein with a mass of about 32-38 kDa. It binds folate with high affinity and facilitates its transport into the cell. FBP can be found in various tissues with notable expression in the placenta kidney and certain epithelial tissues. The protein mediates folate uptake by capturing folates in the extracellular matrix and channeling them through receptor-mediated endocytosis.
Biological function summary	FBP plays a critical role in cellular growth and replication by ensuring sufficient folate supply. It belongs to a family of receptors not forming part of a larger protein complex. FBP's primary function is delivering folate an important B vitamin which acts as a one-carbon donor in DNA synthesis and repair. Optimal folate transport by FBP supports cellular functions particularly in rapidly dividing cells.
Pathways	FBP significantly contributes to the folate-mediated one-carbon metabolic pathway critical for nucleotide biosynthesis. This pathway interconnects with the homocysteine remethylation cycle. FBP associates with other enzymes such as dihydrofolate reductase (DHFR) and methylenetetrahydrofolate reductase (MTHFR) which also play key roles in these pathways. These interactions ensure efficient folate metabolism and maintenance of normal cellular functions.
Associated diseases and disorders	FBP's relation to cancer and neural tube defects is well documented. Overexpression of FBP has been observed in various cancers including ovarian and breast cancer which indicates its potential role in tumor progression. In neural tube defects altered folate transport due to variations in FBP expression impacts neural development. FBP connects to other markers like HER2 in cancer which may form part of a therapeutic target strategy.

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

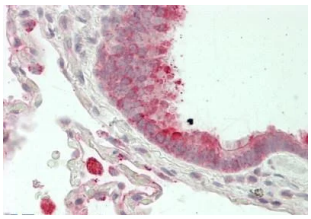
We do not recommend this combination. It is not covered by our product promise.

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.

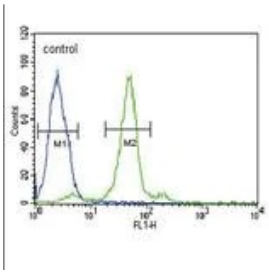
4 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Folate Binding Protein/FBP antibody (ab230469)

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

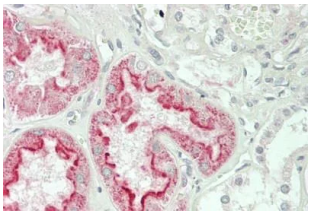
Formalin-fixed, paraffin-embedded human lung tissue stained for Folate Binding Protein/FBP antibody using ab230469 at 1/10 dilution in immunohistochemical analysis.



Flow Cytometry (Intracellular) - Anti-Folate Binding Protein/FBP antibody (ab230469)

Folate Binding Protein/FBP Flow Cytometry (Intracellular) staining using rabbit Anti-Folate Binding Protein/FBP antibody

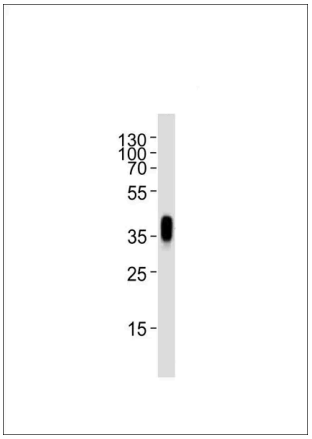
Intracellular flow cytometric analysis of HeLA (human epithelial cell line from cervix adenocarcinoma) cells labeling Folate Binding Protein/FBP with ab230469at 1/10 dilution (green) compared with a negative control (blue).
FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Folate Binding Protein/FBP antibody (ab230469)

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

Formalin-fixed, paraffin-embedded human kidney tissue stained for Folate Binding Protein/FBP antibody using ab230469 at 1/10 dilution in immunohistochemical analysis.



Western blot - Anti-Folate Binding Protein/FBP antibody (ab230469)

All lanes:
Western blot - Anti-Folate Binding Protein/FBP antibody (ab230469) at 1/1000 dilution

All lanes:
HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 35 µg

Secondary

All lanes:
goat anti-rabbit IgG H&L(HRP) at 1/5000 dilution

Developed using the ECL technique.

Predicted band size: 30 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.