abcam

ab248349

Anti-liver FABP antibody [EPR5895(2)] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR5895(2)
Purification technique	Affinity purification
Dissociation constant	4.55 x 10^{-11} M
Concentration	1.052 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Mouse, Human

Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

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

IHC-P

Not recommended

Species	Mouse, Human
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Mouse, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human

Dilution info	-
Notes	-

Expected

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

Target data

See full target information FABP1

Function	Plays a role in lipoprotein-mediated cholesterol uptake in hepatocytes (PubMed:25732850). Binds cholesterol (PubMed:25732850). Binds free fatty acids and their coenzyme A derivatives, bilirubin, and some other small molecules in the cytoplasm. May be involved in intracellular lipid transport (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab248349 is the carrier-free version of ab129203.

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.

What are the advantages of a recombinant monoclonal antibody?

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Species reactivity
Rat: We have preliminary internal testing data to indicate this antibody may not react with this species.
Please contact us for more information.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

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

Activity summary	Liver fatty acid binding protein (liver FABP) also known as L-FABP or FABP1 is a small protein with a mass of approximately 14 kilodaltons. It functions mainly in the liver where it binds free fatty acids and other lipophilic substances facilitating their transport within cells. This protein is highly expressed in hepatocytes and also found in the small intestine and kidneys. Its role in binding fatty acids positions it as an important mediator in lipid metabolism making it of interest in a variety of metabolic studies.
Biological function summary	Liver FABP is essential for maintaining lipid homeostasis within cells. It is not part of a larger complex but acts by itself to regulate the intracellular concentration of lipids and protect cells from lipotoxicity. By sequestering fatty acids it prevents these molecules from disrupting cellular membranes or signaling pathways. Liver FABP also participates in the uptake transport and metabolic conversion of fatty acids and their metabolites influencing energy homeostasis and other vital processes.
Pathways	Liver FABP plays a significant role in the fatty acid metabolism and peroxisome proliferator-activated receptor (PPAR) signaling pathways. It acts by modulating the availability of lipid ligands necessary for PPAR activation linking it functionally to these nuclear receptors that control gene expression involved in lipid and glucose metabolism. Liver FABP's association with proteins like FABP2 and FABP4 within these pathways provides insight into its broader metabolic network highlighting its interactions in fatty acid transport and metabolism.
Associated diseases and disorders	Liver FABP shows a strong connection to metabolic conditions particularly non-alcoholic fatty liver disease (NAFLD) and type 2 diabetes. Its dysregulation is often observed in these disorders which include altered lipid profiles and insulin resistance. Liver FABP is also linked to certain forms of cancer with aberrant expression levels found in some tumor types. The interactions of liver FABP with proteins such as FABP5 in these diseases suggest a potential role in the

pathogenesis of metabolic disorders and tumor development making it a candidate for further research and therapeutic targeting.

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

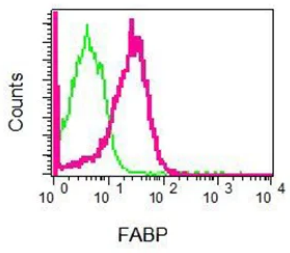
We do not recommend this combination. It is not covered by our product promise.

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.

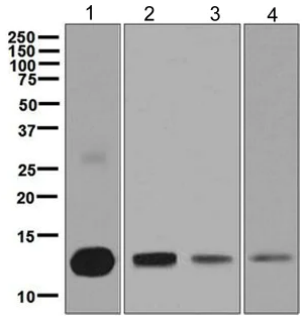
3 product images



Flow Cytometry (Intracellular) - Anti-liver FABP antibody [EPR5895(2)] - BSA and Azide free (ab248349)

Liver FABP Flow Cytometry (Intracellular) staining using rabbit Anti-liver FABP antibody

This data was developed using ab129203, the same antibody clone in a different buffer formulation.
ab129203, at 1/10 dilution, staining FABP in permeabilized HepG2 cells by intracellular flow cytometry (Red). Green represents rabbit IgG negative control.



Western blot - Anti-liver FABP antibody [EPR5895(2)] - BSA and Azide free (ab248349)

This data was developed using ab129203, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-liver FABP antibody [EPR5895(2)] (ab129203) at 1/1000 dilution

Lane 1:
Fetal liver tissue lysate at 10 µg

Lane 2:
Mouse liver tissue lysate at 10 µg

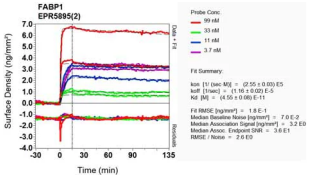
Lane 3:
Human small intestine lysate at 10 µg

Lane 4:
HepG2 cell lysate at 10 µg

Secondary

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

Predicted band size: 14 kDa



OI-RD Scanning - Anti-liver FABP antibody [EPR5895(2)] - BSA and Azide free (ab248349)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

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