abcam

ab93945

Anti-FABP4 antibody [9B8D]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human FABP4. The exact immunogen used to generate this antibody is proprietary information. Database link P15090
Clone number	9B8D
Purification technique	Affinity purification Protein G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from tissue culture supernatant.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/100
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

WB

Tested

Species	Human
Dilution info	1/500 - 1/2000
Notes	-

Target data

See full target information FABP4

Function	Lipid transport protein in adipocytes. Binds both long chain fatty acids and retinoic acid. Delivers long-chain fatty acids and retinoic acid to their cognate receptors in the nucleus.

Storage

Shipped at conditions	Blue Ice
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	Fatty acid-binding protein 4 (FABP4) also known as aP2 is a member of the fatty acid-binding protein family. It predominantly exists in adipocytes and macrophages serving an important role in lipid metabolism and transport. FABP4 facilitates the binding and transport of long-chain fatty acids and other hydrophobic molecules within cells. The molecular weight of FABP4 is approximately 14-15 kDa. It exhibits high expression levels in adipose tissue and is inducible in macrophages under certain conditions.
Biological function summary	This protein participates in the regulation of lipid homeostasis and energy metabolism. FABP4 is part of the lipid-binding protein family that helps maintain fatty acid equilibrium within cells. By controlling the transport and signaling of

	lipids FABP4 impacts lipid storage insulin sensitivity and inflammation processes. Its activity is not confined to a specific multimeric complex yet it interacts with other proteins to exert its functions contributing to significant metabolic pathways in the body.
Pathways	FABP4 plays essential roles in the regulation of metabolic and inflammatory signaling pathways. It is intricately involved in the peroxisome proliferator-activated receptor gamma (PPARγ) pathway where it modulates adipose tissue development and glucose metabolism. In addition FABP4 has connections with the c-Jun N-terminal kinase (JNK) signaling pathway influencing stress and inflammatory responses. Interactions with these pathways place FABP4 at a link with proteins like PPARγ and JNK essential for cellular metabolic balance and responses to metabolic stress.
Associated diseases and disorders	Researchers connect FABP4 to conditions such as obesity and type 2 diabetes. Its expression levels correlate with insulin resistance and metabolic syndrome making it a target of interest in these metabolic disorders. FABP4 interacts with other proteins like adiponectin which is important in modulating glucose levels and fatty acid breakdown. Understanding FABP4's role in these pathways can facilitate the development of therapeutic strategies aimed at targeting metabolic dysfunctions associated with obesity and diabetes.

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

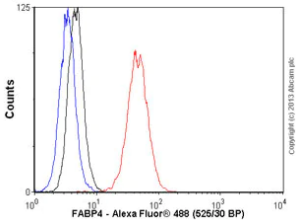
We do not recommend this combination. It is not covered by our product promise.

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.

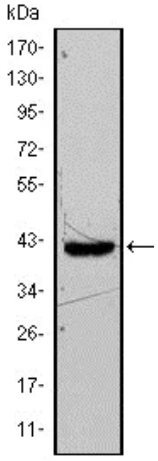
2 product images



Flow Cytometry - Anti-FABP4 antibody [9B8D] (ab93945)

FABP4 Flow Cytometry staining using mouse Anti-FABP4 antibody

Overlay histogram showing THP1 cells stained with ab93945 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab93945, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-mouse IgG (H&L) (ab150113) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in THP1 cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Western blot - Anti-FABP4 antibody [9B8D] (ab93945)

All lanes:
Western blot - Anti-FABP4 antibody [9B8D] (ab93945) at 1/500 dilution

All lanes:
FABP4-hIgGFc transfected HEK293 cell lysate

Predicted band size: 15 kDa

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