

L-FABP (C-4): sc-374537



The Power to Question

BACKGROUND

Fatty acid-binding proteins, designated FABPs, are a family of homologous cytoplasmic proteins that are expressed in a highly tissue-specific manner and play an integral role in the balance between lipid and carbohydrate metabolism. FABPs mediate fatty acid (FA) and/or hydrophobic ligand uptake, transport and targeting within their respective tissues. The mechanisms underlying these actions can give rise to both passive diffusional uptake and protein-mediated transmembrane transport of FAs. FABPs are expressed in adipocytes (A-FABP), brain (B-FABP), epidermis (E-FABP, also designated psoriasis-associated FABP or PA-FABP), muscle and heart (H-FABP, also designated mammary-derived growth inhibitor or MDGI), intestine (I-FABP), liver (L-FABP), myelin (M-FABP) and testis (T-FABP). Liver-specific FABP (L-FABP) expression is modulated by developmental, hormonal, dietary and pharmacological factors and is required for cholesterol synthesis and metabolism.

CHROMOSOMAL LOCATION

Genetic locus: FABP1 (human) mapping to 2p11.2; Fabp1 (mouse) mapping to 6 C1.

SOURCE

L-FABP (C-4) is a mouse monoclonal antibody raised against amino acids 7-126 mapping within an internal region of L-FABP of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

L-FABP (C-4) is available conjugated to agarose (sc-374537 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374537 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374537 PE), fluorescein (sc-374537 FITC), Alexa Fluor® 488 (sc-374537 AF488), Alexa Fluor® 546 (sc-374537 AF546), Alexa Fluor® 594 (sc-374537 AF594) or Alexa Fluor® 647 (sc-374537 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374537 AF680) or Alexa Fluor® 790 (sc-374537 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

L-FABP (C-4) is recommended for detection of L-FABP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for L-FABP siRNA (h): sc-41243, L-FABP siRNA (m): sc-41244, L-FABP shRNA Plasmid (h): sc-41243-SH, L-FABP shRNA Plasmid (m): sc-41244-SH, L-FABP shRNA (h) Lentiviral Particles: sc-41243-V and L-FABP shRNA (m) Lentiviral Particles: sc-41244-V.

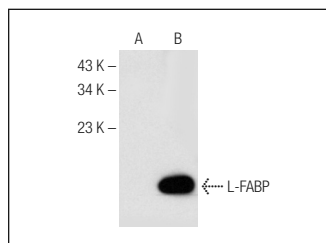
Molecular Weight of L-FABP: 14 kDa.

Positive Controls: mouse liver extract: sc-2256, Hep G2 cell lysate: sc-2227 or L-FABP (m): 293T Lysate: sc-121261.

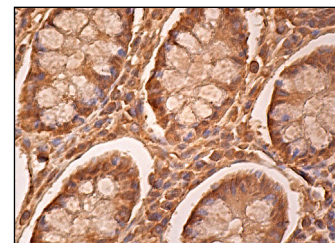
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



L-FABP (C-4): sc-374537. Western blot analysis of L-FABP expression in non-transfected: sc-117752 (A) and mouse L-FABP transfected: sc-121261 (B) 293T whole cell lysates.



L-FABP (C-4): sc-374537. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic staining of glandular and interstitial cells.

SELECT PRODUCT CITATIONS

- Griffith, O.W., et al. 2019. Endometrial recognition of pregnancy occurs in the grey short-tailed opossum (*Monodelphis domestica*). Proc. Biol. Sci. 286: 20190691.
- Tiwari, S., et al. 2020. Gender-specific changes in energy metabolism and protein degradation as major pathways affected in livers of mice treated with ibuprofen. Sci. Rep. 10: 3386.
- Norkin, M., et al. 2021. High-content, targeted RNA-seq screening in organoids for drug discovery in colorectal cancer. Cell Rep. 35: 109026.
- Shibayama, Y., et al. 2022. Class 3 phosphoinositide 3-kinase promotes hepatic glucocorticoid receptor stability and transcriptional activity. Acta Physiol. 235: e13793.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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