SANTA CRUZ BIOTECHNOLOGY, INC.

B-FABP (F-6): sc-374588

SANTA CRUZ BIOTECHNOLOGY

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. Brain fatty acid-binding protein (B-FABP) is expressed in the radial glial cells of the developing central nervous system as well as in a subset of human malignant glioma cell lines.

CHROMOSOMAL LOCATION

Genetic locus: FABP7 (human) mapping to 6q22.31; Fabp7 (mouse) mapping to 10 B4.

SOURCE

B-FABP (F-6) is a mouse monoclonal antibody raised against amino acids 1-132 representing full length B-FABP of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

B-FABP (F-6) is available conjugated to agarose (sc-374588 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-374588 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374588 PE), fluorescein (sc-374588 FITC), Alexa Fluor® 488 (sc-374588 AF488), Alexa Fluor® 546 (sc-374588 AF546), Alexa Fluor® 594 (sc-374588 AF594) or Alexa Fluor® 647 (sc-374588 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374588 AF680) or Alexa Fluor® 790 (sc-374588 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

B-FABP (F-6) is recommended for detection of B-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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for B-FABP siRNA (h): sc-41235, B-FABP siRNA (m): sc-41236, B-FABP shRNA Plasmid (h): sc-41235-SH, B-FABP shRNA Plasmid (m): sc-41236-SH, B-FABP shRNA (h) Lentiviral Particles: sc-41235-V and B-FABP shRNA (m) Lentiviral Particles: sc-41236-V.

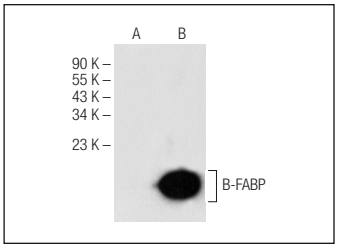
Molecular Weight of B-FABP: 14-15 kDa.

Positive Controls: B-FABP (h): 293T Lysate: sc-113817 or rat lung extract: sc-2396.

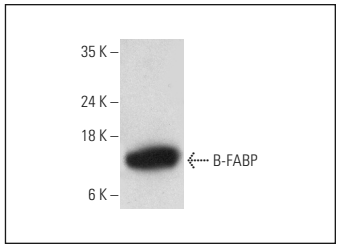
RECOMMENDED SUPPORT REAGENTS

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.

DATA



B-FABP (F-6): sc-374588. Western blot analysis of B-FABP expression in non-transfected: sc-117752 (**A**) and human B-FABP transfected: sc-113817 (**B**) 293T whole cell lysates.



B-FABP (F-6): sc-374588. Western blot analysis of B-FABP expression in rat lung tissue extract.

SELECT PRODUCT CITATIONS

1. Wang, Y., et al. 2018. *Polygonatum odoratum* polysaccharides modulate gut microbiota and mitigate experimentally induced obesity in rats. Int. J. Mol. Sci. 19: 3587.
2. Aubid, N.N., et al. 2019. Isolation and culture of porcine primary fetal progenitors and neurons from the developing dorsal telencephalon. J. Vet. Sci. 20: e3.
3. Xu, X., et al. 2021. Super resolution microscopy reveals DHA-dependent alterations in glioblastoma membrane remodelling and cell migration. Nanoscale 13: 9706-9722.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.