

B-FABP (FL-132): sc-30088

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.

REFERENCES

1. Veerkamp, J.H. and Maatman, R.G. 1995. Cytoplasmic fatty acid-binding proteins: their structure and genes. *Prog. Lipid Res.* 34: 17-52.
2. Hotamisligil, G.S., et al. 1996. Uncoupling of obesity from Insulin resistance through a targeted mutation in aP2, the adipocyte fatty acid binding protein. *Science* 274: 1377-1379.
3. Storch, J. and Thumser, A.E. 2000. The fatty acid transport function of fatty acid-binding proteins. *Biochim. Biophys. Acta* 1486: 28-44. Online Mendelian Inheritance in Man,
4. Bisgrove, D.A., et al. 2000. Regulation of brain fatty acid-binding protein expression by differential phosphorylation of nuclear factor I in malignant glioma cell lines. *J. Biol. Chem.* 275: 30668-30676.

SOURCE

B-FABP (FL-132) is a rabbit polyclonal antibody raised against amino acids 1-132 representing full length B-FABP of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

B-FABP (FL-132) is recommended for detection of B-FABP, and to a lesser extent A-FABP, MDGI and Myelin P2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

B-FABP (FL-132) is also recommended for detection of B-FABP, and to a lesser extent A-FABP, MDGI and Myelin P2 in additional species, including equine, canine, bovine, porcine and avian.

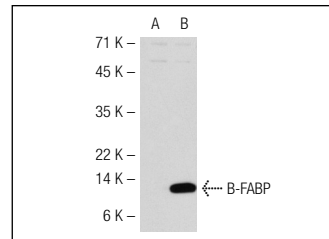
Molecular Weight of B-FABP: 14-15 kDa.

Positive Controls: B-FABP (h): 293T Lysate: sc-113817 or mouse brain extract: sc-2253.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



B-FABP (FL-132): sc-30088. 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.

SELECT PRODUCT CITATIONS

1. Fietz, S.A., et al. 2010. OSVZ progenitors of human and ferret neocortex are epithelial-like and expand by integrin signaling. *Nat. Neurosci.* 13: 690-699.
2. Thirant, C., et al. 2011. Clinical relevance of tumor cells with stem-like properties in pediatric brain tumors. *PLoS ONE* 6: e16375.

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.

PROTOCOLS

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



Try **B-FABP (F-6): sc-374588**, our highly recommended monoclonal alternative to B-FABP (FL-132).