SANTA CRUZ BIOTECHNOLOGY, INC.

A-FABP (m2): 293T Lysate: sc-118110

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 metab-olism. 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), epithelium (E-FABP, psoriasis-associated FABP, PA-FABP), striated muscle and heart (H-FABP, mammary-derived growth inhibitor or MDGI), intestine (I-FABP), liver (L-FABP), myelin (M-FABP) and testis (T-FABP). The human A-FABP gene is organized into four exons, maps to chromosome 8q21 and encodes a 132 amino acid protein. A-FABP protein comprises approximately 1% of the total cytosolic protein in human adipose tissue.

REFERENCES

1. Baxa, C.A., et al. 1989. Human adipocyte lipid-binding protein: purification of the protein and cloning of its complementary DNA. Biochemistry 28: 8683-8690.
2. Veerkamp, J.H. and Maatman, R.G. 1995. Cytoplasmic fatty acid-binding proteins: their structure and genes. Prog. Lipid Res. 34: 17-52.
3. 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.
4. Storch, J. and Thumser, A.E. 2000. The fatty acid transport function of fatty acid-binding proteins. Biochim. Biophys. Acta 1486: 28-44.
5. Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 600434. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Glatz, J.F. and Storch, J. 2001. Unravelling the significance of cellular fatty acid-binding proteins. Curr. Opin. Lipidol. 12: 267-274.
7. Veerkamp, J.H. and Zimmerman, A.W. 2001. Fatty acid-binding proteins of nervous tissue. J. Mol. Neurosci. 16: 133-142.

CHROMOSOMAL LOCATION

Genetic locus: Fabp4 (mouse) mapping to 3 A1.

PRODUCT

A-FABP (m2): 293T Lysate represents a lysate of mouse A-FABP transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

A-FABP (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive A-FABP antibodies. Recommended use: 10-20 µl per lane.

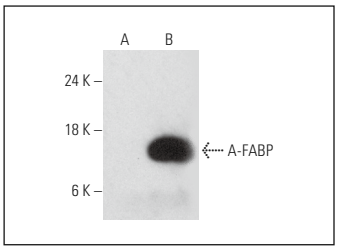
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

A-FABP (B-4) HRP: sc-271529 HRP is recommended as a positive control antibody for Western Blot analysis of enhanced mouse A-FABP expression in A-FABP transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

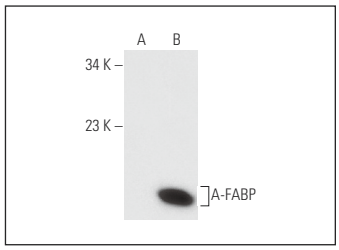
RECOMMENDED SUPPORT REAGENTS

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.

DATA



A-FABP (B-4) HRP: sc-271529 HRP. Direct western blot analysis of A-FABP expression in non-transfected: sc-117752 (**A**) and mouse A-FABP transfected: sc-118110 (**B**) 293T whole cell lysates.



A-FABP (B-4): sc-271529. Western blot analysis of A-FABP expression in non-transfected: sc-117752 (**A**) and mouse A-FABP transfected: sc-118110 (**B**) 293T whole cell lysates.

RESEARCH USE

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