L-FABP (2G4): sc-135628



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.

REFERENCES

- 1. Kaikaus, R.M., Chan, W.K., Ortiz de Montellano, P.R. and Bass, N.M. 1993. Mechanisms of regulation of liver fatty acid-binding protein. Mol. Cell. Biochem. 123: 93-100.
- 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., Johnson, R.S., Distel, R.J., Ellis, R., Papaioannou, V.E. and Spiegelman, B.M. 1996. Uncoupling of obesity from Insulin resistance through a targeted mutation in aP2, the adipocyte fatty acid binding protein. Science 274: 1377-1379.
- 4. Murphy, E.J. 1998. L-FABP and I-FABP expression increase NBD-stearate uptake and cytoplasmic diffusion in L cells. Am. J. Physiol. 275: G244-G249.
- 5. Storch, J. and Thumser, A.E. 2000. The fatty acid transport function of fatty acid-binding proteins. Biochim. Biophys. Acta 1486: 28-44.
- 6. Glatz, J.F. and Storch, J. 2001. Unravelling the significance of cellular fatty acid-binding proteins. Curr. Opin. Lipidol. 12: 267-274.
- Veerkamp, J.H. and Zimmerman, A.W. 2001. Fatty acid-binding proteins of nervous tissue. J. Mol. Neurosci. 16: 133-142.
- 8. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 134640. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: FABP1 (human) mapping to 2p11.2.

SOURCE

L-FABP (2G4) is a mouse monoclonal antibody raised against full-length recombinant L-FABP of human origin.

PRODUCT

Each vial contains 100 $\mu g \; lg G_1$ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

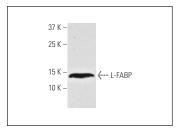
L-FABP (2G4) is recommended for detection of L-FABP of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000)

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

Molecular Weight of L-FABP: 14 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

DATA



L-FABP (2G4): sc-135628. Western blot analysis of L-FABP expression in Hep G2 whole cell lysate.

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 for detailed protocols and support products.