MDGI (6B6): sc-52073



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 meta-bolism. 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), also designated psoriasis-associated FABP (PA-FABP); muscle and heart (H-FABP), also designated mammary-derived growth inhibitor (MDGI); intestine (I-FABP); liver (L-FABP); myelin (M-FABP); and testis (T-FABP). MDGI is highly expressed in the myocardium, skeletal and smooth muscle fibers, lipid and/or steroid synthesizing cells and terminally differentiated epithelia of the respiratory, intestinal and urogenital tracts.

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.
- Zschiesche, W., Kleine, A.H., Spitzer, E., Veerkamp, J.H. and Glatz, J.F. 1995. Histochemical localization of heart-type fatty-acid binding protein in human and murine tissues. Histochem. Cell Biol. 103: 147-156.
- 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. 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/
- 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.
- Ehrhardt, S., Wichmann, D., Hemmer, C.J., Burchard, G.D. and Brattig, N.W. 2004. Circulating concentrations of cardiac proteins in complicated and uncomplicated *Plasmodium falciparum* malaria. Trop. Med. Int. Health 9: 1099-1103.
- 9. LocusLink Report (LocusID: 2167-2174). http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: FABP3 (human) mapping to 1p35.2; Fabp3 (mouse) mapping to 4 D2.2.

SOURCE

MDGI (6B6) is a mouse monoclonal antibody raised against MDGI of human origin.

PRODUCT

Each vial contains 100 μg lgG_{2b} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

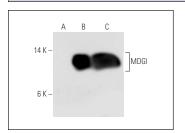
MDGI (6B6) is recommended for detection of MDGI of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for MDGI siRNA (h): sc-41245, MDGI siRNA (m): sc-41246, MDGI shRNA Plasmid (h): sc-41245-SH, MDGI shRNA Plasmid (m): sc-41246-SH, MDGI shRNA (h) Lentiviral Particles: sc-41245-V and MDGI shRNA (m) Lentiviral Particles: sc-41246-V.

Molecular Weight of MDGI: 15 kDa.

Positive Controls: MDGI (m): 293T Lysate: sc-125591 or mouse heart tissue extract: sc-2254.

DATA



MDGI (6B6): sc-52073. Western blot analysis of MDGI expression in non-transfected: sc-117752 (A) and mouse MDGI transfected: sc-125991 (B) 293T whole cell lysates and mouse heart tissue extract (C).

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.

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