

E-FABP (H-45): sc-50379

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), 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). Epithelial fatty acid-binding protein (E-FABP) binds stearic acid and may play a role in keratinocyte differentiation. E-FABP is upregulated in rat dorsal root ganglia after sciatic nerve crush and in differentiating neurons during development.

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.

CHROMOSOMAL LOCATION

Genetic locus: FABP5 (human) mapping to 8q21.13; Fabp5 (mouse) mapping to 3 A1.

SOURCE

E-FABP (H-45) is a rabbit polyclonal antibody raised against amino acids 29-73 mapping within an internal region of E-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

E-FABP (H-45) is recommended for detection of E-FABP 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

E-FABP (H-45) is also recommended for detection of E-FABP in additional species, including equine, canine, bovine and porcine.

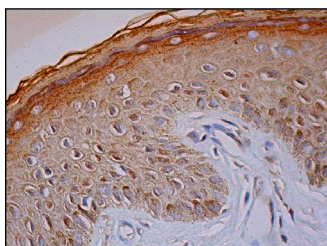
Suitable for use as control antibody for E-FABP siRNA (h): sc-41237, E-FABP siRNA (m): sc-41238, E-FABP shRNA Plasmid (h): sc-41237-SH, E-FABP shRNA Plasmid (m): sc-41238-SH, E-FABP shRNA (h) Lentiviral Particles: sc-41237-V and E-FABP shRNA (m) Lentiviral Particles: sc-41238-V.

Molecular Weight of E-FABP: 15 kDa.

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



E-FABP (H-45): sc-50379. Immunoperoxidase staining of formalin fixed, paraffin-embedded human vulva/anal skin tissue showing cytoplasmic and nuclear staining of epidermal cells.

SELECT PRODUCT CITATIONS

1. Melle, C., et al. 2009. Proteomic analysis of human papillomavirus-related oral squamous cell carcinoma: identification of thioredoxin and epidermal-fatty acid binding protein as upregulated protein markers in microdissected tumor tissue. *Proteomics* 9: 2193-2201.

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.

MONOS
Satisfaction
Guaranteed

Try **E-FABP (A-9): sc-365236** or **E-FABP (B-3): sc-365166**, our highly recommended monoclonal alternatives to E-FABP (H-45).