

FNDC3B (N-12): sc-99895

BACKGROUND

Adipogenesis, the process of transforming pre-adipocytes into mature fat cells, is of particular interest due to the role adipocytes play in obesity and type II diabetes. Adipocytes have been shown to affect a variety of functions, including hemostasis, angiogenesis and energy balance, by secreting hormones and bioactive peptides. The FNDC3B protein, also designated FAD104 (factor for adipocyte differentiation 104) or HCV NS5A-binding protein 37, is expressed during early adipogenesis. Belonging to the FNDC3 family of proteins, FNDC3B is a 1,204 amino acid protein that contains nine fibronectin type-III domains. FNDC3B-deficient mice die within one day of birth, suggesting that FNDC3B is crucial for postpartum survival. Mouse embryonic fibroblasts (MEFs) with loss of FNDC3B function displayed a reduction in stress fiber formation, indicating a role for FNDC3B in cell proliferation, adhesion, spreading and migration.

REFERENCES

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2. Rosen, E.D. 2002. The molecular control of adipogenesis, with special reference to lymphatic pathology. *Ann. N.Y. Acad. Sci.* 979: 143-158.
3. Tominaga, K., et al. 2004. The novel gene fad104, containing a fibronectin type III domain, has a significant role in adipogenesis. *FEBS Lett.* 577: 49-54.
4. Tominaga, K., et al. 2004. Fad24, a mammalian homolog of Noc3p, is a positive regulator in adipocyte differentiation. *J. Cell Sci.* 117: 6217-6226.
5. Ailhaud, G. 2006. Adipose tissue as a secretory organ: from adipogenesis to the metabolic syndrome. *C. R. Biol.* 329: 570-577.
6. Johmura, Y. 2007. Characterization of novel genes regulating adipocyte differentiation. *Yakugaku Zasshi* 127: 135-142.
7. Hishida, T., et al. 2008. A novel gene, fad49, plays a crucial role in the immediate early stage of adipocyte differentiation via involvement in mitotic clonal expansion. *FEBS J.* 275: 5576-5588.

CHROMOSOMAL LOCATION

Genetic locus: FNDC3B (human) mapping to 3q26.31; Fndc3b (mouse) mapping to 3 A3.

SOURCE

FNDC3B (N-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of FNDC3B of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-99895 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

FNDC3B (N-12) is recommended for detection of FNDC3B 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); non cross-reactive with other FNDC family members.

Suitable for use as control antibody for FNDC3B siRNA (h): sc-78339, FNDC3B siRNA (m): sc-145212, FNDC3B shRNA Plasmid (h): sc-78339-SH, FNDC3B shRNA Plasmid (m): sc-145212-SH, FNDC3B shRNA (h) Lentiviral Particles: sc-78339-V and FNDC3B shRNA (m) Lentiviral Particles: sc-145212-V.

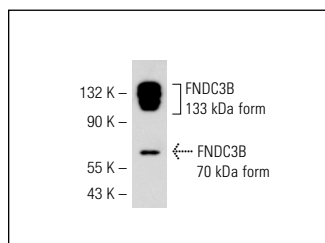
Molecular Weight of FNDC3B: 133/70/8 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243.

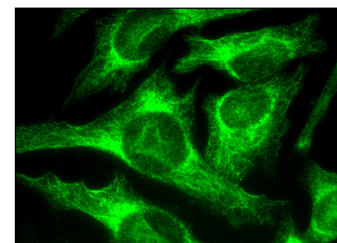
RECOMMENDED SECONDARY REAGENTS

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



FNDC3B (N-12): sc-99895. Western blot analysis of FNDC3B expression in 3T3-L1 whole cell lysate.



FNDC3B (N-12): sc-99895. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and membrane localization.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

MONOS
Satisfaction
Guaranteed

Try **FNDC3B (B-1): sc-393997** or **FNDC3B (B-6): sc-393875**, our highly recommended monoclonal alternatives to FNDC3B (N-12).