

FNDC3A (J-7): sc-100771

BACKGROUND

FNDC3A (fibronectin type III domain containing 3A), also known as HUGO (human gene expressed in odontoblasts), is a 1,134 amino acid protein that belongs to the FNDC3 family of proteins. FNDC3A contains an N-terminal proline-rich region, nine fibronectin type-III domains (none of which contain an RGD sequence) and a hydrophobic C-terminal transmembranous helix. Expressed in a wide variety of tissues, FNDC3A localizes to Golgi vesicles and to the developing acrosome of spermatids. FNDC3A is believed to function in glycosaminoglycan and collagen synthesis. In mice, a mutation in the gene encoding FNDC3A causes male sterility due to defective adhesion between Sertoli cells and spermatids in the seminiferous epithelium. This suggests that FNDC3A plays an important role in spermatogenesis, possibly mediating or maintaining the adhesion between Sertoli cells and spermatids.

REFERENCES

- Bonaldo, M.F., Lennon, G. and Soares, M.B. 1996. Normalization and subtraction: two approaches to facilitate gene discovery. *Genome Res.* 6: 791-806.
- Nagase, T., Ishikawa, K., Suyama, M., Kikuno, R., Hirose, M., Miyajima, N., Tanaka, A., Kotani, H., Nomura, N. and Ohara, O. 1999. Prediction of the coding sequences of unidentified human genes. XIII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. *DNA Res.* 6: 63-70.
- Nakajima, D., Okazaki, N., Yamakawa, H., Kikuno, R., Ohara, O. and Nagase, T. 2002. Construction of expression-ready cDNA clones for KIAA genes: manual curation of 330 KIAA cDNA clones. *DNA Res.* 9: 99-106.
- Olsen, J.V., Blagoev, B., Gnäd, F., Macek, B., Kumar, C., Mortensen, P. and Mann, M. 2006. Global, *in vivo*, and site-specific phosphorylation dynamics in signaling networks. *Cell* 127: 635-648.
- Obholz, K.L., Akopyan, A., Waymire, K.G. and MacGregor, G.R. 2006. FNDC3A is required for adhesion between spermatids and Sertoli cells. *Dev. Biol.* 298: 498-513.
- Carrouel, F., Couble, M.L., Vanbelle, C., Staquet, M.J., Magloire, H. and Bleicher, F. 2008. HUGO (FNDC3A): a new gene overexpressed in human odontoblasts. *J. Dent. Res.* 87: 131-136.

CHROMOSOMAL LOCATION

Genetic locus: FNDC3A (human) mapping to 13q14.2.

SOURCE

FNDC3A (J-7) is a mouse monoclonal antibody raised against recombinant FNDC3A of human origin.

PRODUCT

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

RESEARCH USE

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

APPLICATIONS

FNDC3A (J-7) is recommended for detection of FNDC3A 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)], 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).

Suitable for use as control antibody for FNDC3A siRNA (h): sc-62333, FNDC3A shRNA Plasmid (h): sc-62333-SH and FNDC3A shRNA (h) Lentiviral Particles: sc-62333-V.

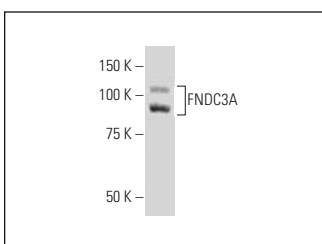
Molecular Weight of FNDC3A: 132 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

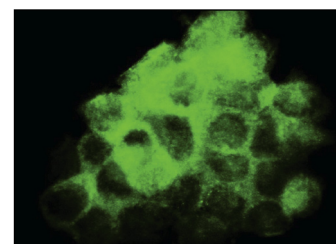
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



FNDC3A (J-7): sc-100771. Western blot analysis of FNDC3A expression in A-431 whole cell lysate.



FNDC3A (J-7): sc-100771. Immunofluorescence staining of paraformaldehyde-fixed A-431 cells showing membrane and cytoplasmic localization.

STORAGE

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

PROTOCOLS

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