

# FNDC3A (A-19): sc-68178

## 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., Gnani, 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.

## CHROMOSOMAL LOCATION

Genetic locus: FNDC3A (human) mapping to 13q14.2; Fndc3a (mouse) mapping to 14 D2.

## SOURCE

FNDC3A (A-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FNDC3A 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.

Blocking peptide available for competition studies, sc-68178 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

FNDC3A (A-19) is recommended for detection of fibronectin type-iii domain-containing protein 3a of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

FNDC3A (A-19) is also recommended for detection of fibronectin type-iii domain-containing protein 3a in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for FNDC3A siRNA (h): sc-62333, FNDC3A siRNA (m): sc-72053, FNDC3A shRNA Plasmid (h): sc-62333-SH, FNDC3A shRNA Plasmid (m): sc-72053-SH, FNDC3A shRNA (h) Lentiviral Particles: sc-62333-V and FNDC3A shRNA (m) Lentiviral Particles: sc-72053-V.

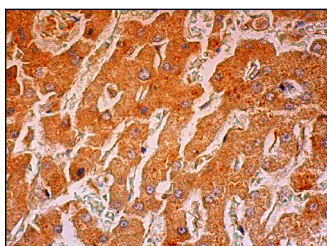
Molecular Weight of FNDC3A: 126 kDa.

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

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



FNDC3A (A-19): sc-68178. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

## STORAGE

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