# SANTA CRUZ BIOTECHNOLOGY, INC.

# FNDC8 (S-15): sc-240471



The Power to Question

## BACKGROUND

Fibronectins are multi-domain glycoproteins that bind to a variety of substances including collagen, actin, heparin, DNA, fibrin and fibronectin receptors. Fibronectins are involved in a diverse array of important functions such as blood coagulation, wound healing, cell adhesion, cell differentiation and migration. Fibronectin type-III domain containing proteins, such as cell surface receptors and cell adhesion molecules, mediate protein-protein interactions and are involved in multiple biological processes including tissue development and metastasis. FNDC8 (fibronectin type III domain containing 8) is a 324 amino acid protein containing one fibronectin type-III domain. Conserved in human, chimpanzee, canine, bovine, mouse and rat, FNDC8 is encoded by a gene located on human chromosome 17q12. Human chromosome 17 comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1.

#### REFERENCES

- Kornblihtt, A.R., Umezawa, K., Vibe-Pedersen, K. and Baralle, F.E. 1985. Primary structure of human fibronectin: differential splicing may generate at least 10 polypeptides from a single gene. EMBO J. 4: 1755-1759.
- Leahy, D.J., Hendrickson, W.A., Aukhil, I. and Erickson, H.P. 1992. Structure of a fibronectin type III domain from tenascin phased by MAD analysis of the selenomethionyl protein. Science 258: 987-991.
- Potts, J.R. and Campbell, I.D. 1994. Fibronectin structure and assembly. Curr. Opin. Cell Biol. 6: 648-655.
- Little, E., Bork, P. and Doolittle, R.F. 1994. Tracing the spread of fibronectin type III domains in bacterial glycohydrolases. J. Mol. Evol. 39: 631-643.
- Carr, P.A., Erickson, H.P. and Palmer, A.G. 1997. Backbone dynamics of homologous fibronectin type III cell adhesion domains from fibronectin and tenascin. Structure 5: 949-959.
- Teufel, A., Malik, N., Mukhopadhyay, M. and Westphal, H. 2002. Frcp1 and Frcp2, two novel fibronectin type III repeat containing genes. Gene 297: 79-83.
- Strausberg, R.L., et. al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. Proc. Natl. Acad. Sci. USA 99: 16899-16903.
- 8. Carafoli, F., Saffell, J.L. and Hohenester, E. 2008. Structure of the tandem fibronectin type 3 domains of neural cell adhesion molecule. J. Mol. Biol. 377: 524-534.
- Bloom, L. and Calabro, V. 2009. FN3: a new protein scaffold reaches the clinic. Drug Discov. Today 14: 949-955.

## CHROMOSOMAL LOCATION

Genetic locus: FNDC8 (human) mapping to 17q12; Fndc8 (mouse) mapping to 11 C.

## SOURCE

FNDC8 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FNDC8 of human origin.

## PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-240471 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# **APPLICATIONS**

FNDC8 (S-15) is recommended for detection of FNDC8 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) 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 FNDC8 siRNA (h): sc-93788, FNDC8 siRNA (m): sc-145216, FNDC8 shRNA Plasmid (h): sc-93788-SH, FNDC8 shRNA Plasmid (m): sc-145216-SH, FNDC8 shRNA (h) Lentiviral Particles: sc-93788-V and FNDC8 shRNA (m) Lentiviral Particles: sc-145216-V.

Molecular Weight of FNDC8: 36 kDa.

#### **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) Immunofluo-rescence: 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.

#### **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.