

FNDC4 (P-12): sc-107549

BACKGROUND

Fibronectins are multi-domain glycoproteins that bind to a variety of substances including collagen, Actin, heparin, DNA, fibrin and Fibronectin receptors. They are involved in a diverse array of important functions such as blood coagulation, wound healing, cell adhesion, cell differentiation and migration. FNDC4 (Fibronectin type III domain-containing protein 4), also known as FRCP1 (Fibronectin type III repeat-containing protein 1), is a 234 amino acid membrane protein that contains one Fibronectin type-III domain, which serves as a binding site for DNA, heparin or the cell surface. The gene encoding FNDC4 is localized to human chromosome 2, which houses over 1,400 genes and comprises nearly 8% of the human genome.

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.
- Dean, D.C., Bowlus, C.L. and Bourgeois, S. 1987. Cloning and analysis of the promoter region of the human Fibronectin gene. *Proc. Natl. Acad. Sci. USA* 84: 1876-1880.
- 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.
- 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.
- Teufel, A., Malik, N., Mukhopadhyay, M. and Westphal, H. 2002. Frp1 and Frp2, two novel Fibronectin type III repeat containing genes. *Gene* 297: 79-83.
- 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.
- Online Mendelian Inheritance in Man, OMIM[™]. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 611905. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: FNDC4 (human) mapping to 2p23.3; Fndc4 (mouse) mapping to 5 B1.

SOURCE

FNDC4 (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of FNDC4 of human origin.

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 or our catalog for detailed protocols and support products.

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-107549 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FNDC4 (P-12) is recommended for detection of FNDC4 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 FNDC4 siRNA (h): sc-94389, FNDC4 siRNA (m): sc-145213, FNDC4 shRNA Plasmid (h): sc-94389-SH, FNDC4 shRNA Plasmid (m): sc-145213-SH, FNDC4 shRNA (h) Lentiviral Particles: sc-94389-V and FNDC4 shRNA (m) Lentiviral Particles: sc-145213-V.

Molecular Weight of FNDC4: 25 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) 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.

RESEARCH USE

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