SANTA CRUZ BIOTECHNOLOGY, INC.

FNBP1 (Q-13): sc-82149

BACKGROUND

FNBP1 (formin binding protein 1), also known as FBP17 or KIAA0554, is a 617 amino acid protein that localizes to a variety of locations within the cell, including the cytoplasm, cytoskeleton, lysosome and the cell cortex, and contains one FCH domain, one REM repeat and one SH3 domain. Expressed at high levels in respiratory, reproductive and urinary systems, as well as in brown adipose tissue and epithelial cells of the gastrointestinal tract, FNBP1 interacts with Rho 7 and links the actin cytoskeleton with Rho 7 signaling, playing a crucial role in membrane tubulation and cytoskeletal reorganization during endocytosis. Additionally, FNBP1, which exists as four alternatively spliced isoforms, enhances actin polymerization and promotes membrane invagination and the formation of tubules. Chromosomal aberrations in the FNBP1 gene are associated with acute leukemias, suggesting a role for defective FNBP1 in carcinogenesis.

REFERENCES

1. Nagase, T., et al. 1998. Prediction of the coding sequences of unidentified human genes. IX. The complete sequences of 100 new cDNA clones from brain which can code for large proteins *in vitro*. DNA Res. 5: 31-39.
2. Fuchs, U., et al. 2001. The human formin-binding protein 17 (FBP17) interacts with sorting nexin, SNX2, and is an MLL-fusion partner in acute myeloogeneous leukemia. Proc. Natl. Acad. Sci. USA 98: 8756-8761.
3. Fujita, H., et al. 2002. Rapostlin is a novel effector of Rnd2 GTPase inducing neurite branching. J. Biol. Chem. 277: 45428-45434.
4. Fuchs, U., et al. 2003. The formin-binding protein 17, FBP17, binds via a TNKS binding motif to tankyrase, a protein involved in telomere maintenance. FEBS Lett. 554: 10-16.
5. Katoh, M. and Katoh, M. 2003. FNBP2 gene on human chromosome 1q32.1 encodes ARHGAP family protein with FCH, FBH, RhoGAP and SH3 domains. Int. J. Mol. Med. 11: 791-797.

CHROMOSOMAL LOCATION

Genetic locus: FNBP1 (human) mapping to 9q34.11; Fnbp1 (mouse) mapping to 2 B.

SOURCE

FNBP1 (Q-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FNBP1 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-82149 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

FNBP1 (Q-13) is recommended for detection of FNBP1 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).

Suitable for use as control antibody for FNBP1 siRNA (h): sc-75048, FNBP1 siRNA (m): sc-75049, FNBP1 shRNA Plasmid (h): sc-75048-SH, FNBP1 shRNA Plasmid (m): sc-75049-SH, FNBP1 shRNA (h) Lentiviral Particles: sc-75048-V and FNBP1 shRNA (m) Lentiviral Particles: sc-75049-V.

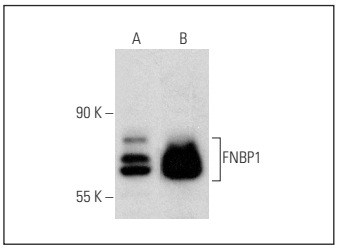
Molecular Weight of FNBP1: 73 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Raji whole cell lysate: sc-364236 or IB4 whole cell lysate: sc-364780.

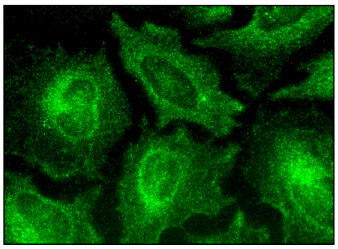
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



FNBP1 (Q-13): sc-82149. Western blot analysis of FNBP1 expression in Raji (**A**) and IB4 (**B**) whole cell lysates.



FNBP1 (Q-13): sc-82149. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and membrane localization.

RESEARCH USE

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