SANTA CRUZ BIOTECHNOLOGY, INC.

# FNBP1 (C-9): sc-515414

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## 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 myeloge-neous 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.
6. Kamioka, Y., et al. 2004. A novel dynamin-associating molecule, formin-binding protein 17, induces tubular membrane invaginations and participates in endocytosis. J. Biol. Chem. 279: 40091-40099.
7. Qian, J., et al. 2006. Regulation of FasL expression: a SH3 domain containing protein family involved in the lysosomal association of FasL. Cell. Signal. 18: 1327-1337.


## CHROMOSOMAL LOCATION

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

## SOURCE

FNBP1 (C-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 146-163 within an internal region of FNBP1 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.

## PRODUCT

Each vial contains 200 µg $IgG_1$ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FNBP1 (C-9) is available conjugated to agarose (sc-515414 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515414 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515414 PE), fluorescein (sc-515414 FITC), Alexa Fluor® 488 (sc-515414 AF488), Alexa Fluor® 546 (sc-515414 AF546), Alexa Fluor® 594 (sc-515414 AF594) or Alexa Fluor® 647 (sc-515414 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515414 AF680) or Alexa Fluor® 790 (sc-515414 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515414 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).



## APPLICATIONS

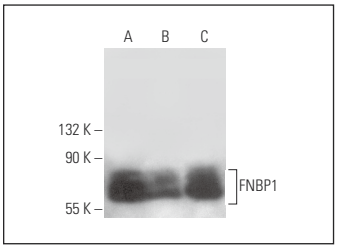
FNBP1 (C-9) is recommended for detection of FNBP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) 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.

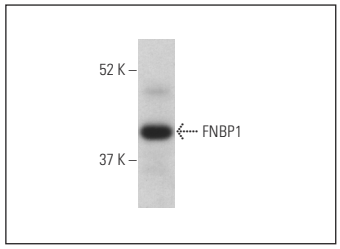
Molecular Weight of FNBP1: 73 kDa.

Positive Controls: Neuro-2A whole cell lysate: sc-364185, NAMALWA cell lysate: sc-2234 or Ramos cell lysate: sc-2216.

## DATA




FNBP1 (C-9): sc-515414. Western blot analysis of FNBP1 expression in GA-10 (**A**), Ramos (**B**) and NAMALWA (**C**) whole cell lysates.




FNBP1 (C-9): sc-515414. Western blot analysis of FNBP1 expression in Neuro-2A whole cell lysate. Detection reagent used: m-$IgG_1$ BP-HRP: sc-525408.

## RESEARCH USE

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