SANTA CRUZ BIOTECHNOLOGY, INC.

BRAP (N-12): sc-109221

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The Power to Question

BACKGROUND

BRAP (BRCA1 associated protein), also known as RNF52 (RING finger protein 52), BRAP2 or IMP, is a 592 amino acid protein that localizes to the cytoplasm and contains one UBP-type zinc finger and one RING-type zinc finger. Expressed in breast epithelial cells, BRAP functions to negatively regulate MAP kinase activity, specifically by inactivating the Ksr-1 scaffold protein, thereby limiting the formation of Raf/MEK complexes. Additionally, BRAP may play a role in the regulation of nuclear transport and may also act as a Ras-responsive E3 ubiquitin ligase that is subject to auto-ubiquitination. The gene encoding BRAP maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and Trisomy 12p, which causes facial developmental defects and seizure disorders.

REFERENCES

1. Chen, C.F., et al. 1996. The nuclear localization sequences of the BRCA1 protein interact with the importin-α subunit of the nuclear transport signal receptor. J. Biol. Chem. 271: 32863-32868.
2. Li, S., et al. 1998. Identification of a novel cytoplasmic protein that specifically binds to nuclear localization signal motifs. J. Biol. Chem. 273: 6183-6189.
3. Asada, M., et al. 2004. Brap2 functions as a cytoplasmic retention protein for p21 during monocyte differentiation. Mol. Cell. Biol. 24: 8236-8243.
4. Matheny, S.A., et al. 2004. Ras regulates assembly of mitogenic signalling complexes through the effector protein IMP. Nature 427: 256-260.
5. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 604986. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: BRAP (human) mapping to 12q24.12; Brap (mouse) mapping to 5 F.

SOURCE

BRAP (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of BRAP 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-109221 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

BRAP (N-12) is recommended for detection of BRAP 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).

BRAP (N-12) is also recommended for detection of BRAP in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for BRAP siRNA (h): sc-95995, BRAP siRNA (m): sc-141737, BRAP shRNA Plasmid (h): sc-95995-SH, BRAP shRNA Plasmid (m): sc-141737-SH, BRAP shRNA (h) Lentiviral Particles: sc-95995-V and BRAP shRNA (m) Lentiviral Particles: sc-141737-V.

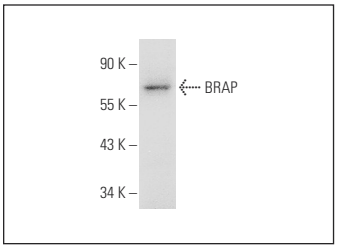
Molecular Weight of BRAP: 68 kDa.

Positive Controls: MDA-MB-231 cell lysate: sc-2232 or NIH/3T3 whole cell lysate: sc-2210.

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



BRAP (N-12): sc-109221. Western blot analysis of BRAP expression in NIH/3T3 whole cell lysate.

RESEARCH USE

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

MONOS Satisfaction Guaranteed

Try **BRAP (D-5): sc-166012**, our highly recommended monoclonal alternative to BRAP (N-12).