BRAP (H-300): sc-98289



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., Li, S., Chen, Y., Chen, P.L., Sharp, Z.D. and Lee, W.H. 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.
- Li, S., Ku, C.Y., Farmer, A.A., Cong, Y.S., Chen, C.F. and Lee, W.H. 1998. Identification of a novel cytoplasmic protein that specifically binds to nuclear localization signal motifs. J. Biol. Chem. 273: 6183-6189.
- 3. Asada, M., Ohmi, K., Delia, D., Enosawa, S., Suzuki, S., Yuo, A., Suzuki, H. and Mizutani, S. 2004. BRAP2 functions as a cytoplasmic retention protein for p21 during monocyte differentiation. Mol. Cell. Biol. 24: 8236-8243.
- Matheny, S.A., Chen, C., Kortum, R.L., Razidlo, G.L., Lewis, R.E. and White, M.A. 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/
- Chen, C., Lewis, R.E. and White, M.A. 2008. IMP modulates KSR1-dependent multivalent complex formation to specify ERK 1/2 pathway activation and response thresholds. J. Biol. Chem. 283: 12789-12796.
- 7. Chen, J.S., Hu, H.Y., Zhang, S., He, M. and Hu, R.M. 2009. Brap2 facilitates HsCdc14A Lys-63 linked ubiquitin modification. Biotechnol. Lett. 31: 615-621.
- 8. Ozaki, K., Sato, H., Inoue, K., Tsunoda, T., Sakata, Y., Mizuno, H., Lin, T.H., Miyamoto, Y., Aoki, A., Onouchi, Y., Sheu, S.H., Ikegawa, S., Odashiro, K., Nobuyoshi, M., Juo, S.H., Hori, M., Nakamura, Y. and Tanaka, T. 2009. SNPs in BRAP associated with risk of myocardial infarction in Asian populations. Nat. Genet. 41: 329-333.

CHROMOSOMAL LOCATION

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

SOURCE

BRAP (H-300) is a rabbit polyclonal antibody raised against amino acids 41-340 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.

APPLICATIONS

BRAP (H-300) 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 (H-300) is also recommended for detection of BRAP in additional species, including equine, canine, bovine 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.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.



Try **BRAP (D-5): sc-166012**, our highly recommended monoclonal alternative to BRAP (H-300).

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com