

BRAP (m): 293T Lysate: sc-118840

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/>
6. Chen, C., et al. 2008. IMP modulates KSR1-dependent multivalent complex formation to specify ERK1/2 pathway activation and response thresholds. *J. Biol. Chem.* 283: 12789-12796.
7. Chen, J.S., et al. 2009. Brap2 facilitates HsCdc14A Lys-63 linked ubiquitin modification. *Biotechnol. Lett.* 31: 615-621.
8. Ozaki, K., et al. 2009. SNPs in BRAP associated with risk of myocardial infarction in Asian populations. *Nat. Genet.* 41: 329-333.

CHROMOSOMAL LOCATION

Genetic locus: Brap (mouse) mapping to 5 F.

PRODUCT

BRAP (m): 293T Lysate represents a lysate of mouse BRAP transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

BRAP (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive BRAP antibodies. Recommended use: 10-20 μ l per lane.

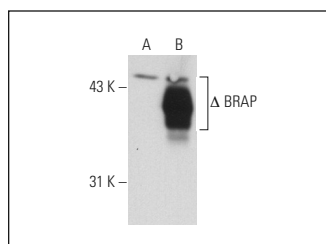
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

BRAP (D-5): sc-166012 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse BRAP expression in BRAP transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



BRAP (D-5): sc-166012. Western blot analysis of BRAP expression in non-transfected: sc-117752 (A) and truncated mouse BRAP transfected: sc-118840 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.