

p140Cap (E-14): sc-168867

BACKGROUND

p140Cap, also known as P140, KIAA1684 or SNIP (SNAP25-interacting protein), is a 1,055 amino acid protein that localizes to both the cytoplasm and the cytoskeleton and exists as multiple alternatively spliced isoforms. Interacting with the N-terminal region of SNAP 25, p140Cap functions to delay the onset of cell spreading during the early stages of cell adhesion and may also be involved in calcium-dependent exocytosis from specific cell types. The gene encoding p140Cap maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Tumor suppressor p53 is necessary for maintenance of cellular genetic integrity by moderating cell fate through DNA repair versus cell death. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair, though specifically it is recognized as a genetic determinant of early onset breast cancer and predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes.

REFERENCES

1. Nagase, T., et al. 2000. Prediction of the coding sequences of unidentified human genes. XIX. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 7: 347-355.
2. Chin, L.S., et al. 2000. SNIP, a novel SNAP-25-interacting protein implicated in regulated exocytosis. J. Biol. Chem. 275: 1191-1200.
3. Graham, M.E., et al. 2002. Molecular analysis of SNAP-25 function in exocytosis. Ann. N.Y. Acad. Sci. 971: 210-221.
4. Di Stefano, P., et al. 2004. p130Cas-associated protein (p140Cap) as a new tyrosine-phosphorylated protein involved in cell spreading. Mol. Biol. Cell. 15: 787-800.
5. Di Stefano, P., et al. 2007. p140Cap protein suppresses tumour cell properties, regulating Csk and Src kinase activity. EMBO J. 26: 2843-2855.
6. Online Mendelian Inheritance in Man, OMIM[™]. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 610786. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Kennedy, S., et al. 2008. SNIP/p140Cap mRNA expression is an unfavourable prognostic factor in breast cancer and is not expressed in normal breast tissue. Br. J. Cancer 98: 1641-1645.

CHROMOSOMAL LOCATION

Genetic locus: SRCIN1 (human) mapping to 17q12; Srcin1 (mouse) mapping to 11 D.

SOURCE

p140Cap (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of p140Cap 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 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-168867 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p140Cap (E-14) is recommended for detection of p140Cap of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 p140Cap siRNA (h): sc-94123, p140Cap siRNA (m): sc-151956, p140Cap shRNA Plasmid (h): sc-94123-SH, p140Cap shRNA Plasmid (m): sc-151956-SH, p140Cap shRNA (h) Lentiviral Particles: sc-94123-V and p140Cap shRNA (m) Lentiviral Particles: sc-151956-V.

Molecular Weight of p140Cap: 145 kDa.

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) 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.

RESEARCH USE

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

PROTOCOLS

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