

CSAP (N-16): sc-137340

BACKGROUND

CSAP (centriole, cilia and spindle-associated protein), also known as CCSAP or C1orf96, is a 270 amino acid protein that colocalizes with polyglutamylated tubulin to centrioles, spindle microtubules, and cilia. Localization of CSAP to spindle and cilia microtubules can be prevented by reducing tubulin polyglutamylation. CSAP is required for proper cilia beating, and may play a role in embryonic development. In Zebrafish, CSAP is required for normal brain development and correct left-right asymmetry. Existing as four alternatively spliced isoforms, CSAP is encoded by a gene mapping to human chromosome 1q42.13 and mouse chromosome 8 E2. Chromosome 1 is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome. The rare aging disease Hutchinson-Gilford progeria is associated with the LMNA gene which encodes lamin A. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are also associated with chromosome 1.

REFERENCES

1. Watson, M.L., et al. 1990. Genomic organization of the selectin family of leukocyte adhesion molecules on human and mouse chromosome 1. *J. Exp. Med.* 172: 263-272.
2. Blackwood, D.H., et al. 2001. Schizophrenia and affective disorders— cosegregation with a translocation at chromosome 1q42 that directly disrupts brain-expressed genes: clinical and P300 findings in a family. *Am. J. Hum. Genet.* 69: 428-433.
3. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.
4. Lans, H., et al. 2006. Cell biology: aging nucleus gets out of shape. *Nature* 440: 32-34.
5. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
6. Hennah, W., et al. 2006. Genes and schizophrenia: beyond schizophrenia: the role of DISC-1 in major mental illness. *Schizophr. Bull.* 32: 409-416.
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CHROMOSOMAL LOCATION

Genetic locus: CCSAP (human) mapping to 1q42.13; Ccsap (mouse) mapping to 8 E2.

SOURCE

CSAP (N-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of CSAP of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-137340 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CSAP (N-16) is recommended for detection of CSAP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with isoform 2.

CSAP (N-16) is also recommended for detection of CSAP in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for CSAP siRNA (h): sc-78793, CSAP siRNA (m): sc-108455, CSAP shRNA Plasmid (h): sc-78793-SH, CSAP shRNA Plasmid (m): sc-108455-SH, CSAP shRNA (h) Lentiviral Particles: sc-78793-V and CSAP shRNA (m) Lentiviral Particles: sc-108455-V.

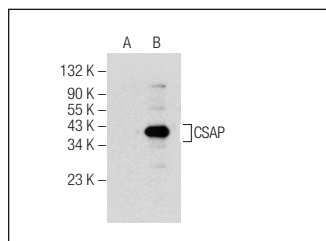
Molecular Weight of CSAP: 30 kDa.

Positive Controls: CSAP (m): 293T Lysate: sc-117849.

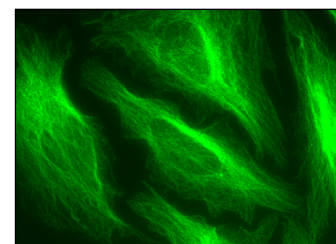
RECOMMENDED SECONDARY REAGENTS

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.

DATA



CSAP (N-16): sc-137340. Western blot analysis of CSAP expression in non-transfected: sc-117752 (A) and mouse CSAP transfected: sc-117850 (B) 293T whole cell lysates.



CSAP (N-16): sc-137340. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoskeletal localization.

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.