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hCAP-H (m2): 293T Lysate: sc-126947

BACKGROUND

hCAP-H, also known as NCAPH (non-SMC condensin I complex subunit H), BRRN, BRRN1 or CAPH, is a widely expressed 741 amino acid member of the CND2 (condensin subunit 2) family. Localized to the cytoplasm and the nucleus during interphase and to the nucleus during the rest of mitosis, hCAP-H is a regulatory subunit of the condensin complex, a multi-protein structure that converts interphase chromatin into condensed chromosomes. The condensin complex is thought to induce positive supercoils into relaxed DNA and may also convert nicked DNA into knotted forms that can properly condense. hCAP-H, as well as other subunits of the condensin complex, are subject to phosphorylation by Cdc2 (cell division cycle 2). This phosphorylation activates the condensin complex and is, therefore, required for chromosome condensation.

REFERENCES

- Hirano, T. and Mitchison, T.J. 1994. A heterodimeric coiled-coil protein required for mitotic chromosome condensation *in vitro*. *Cell* 79: 449-458.
- Bhat, M.A., Philp, A.V., Glover, D.M. and Bellen, H.J. 1996. Chromatid segregation at anaphase requires the barren product, a novel chromosome-associated protein that interacts with Topoisomerase II. *Cell* 87: 1103-1114.
- Cabello, O.A., Baldini, A., Bhat, M., Bellen, H. and Belmont, J.W. 1997. Localization of BRRN1, the human homologue of *Drosophila* barr, to 2q11.2. *Genomics* 46: 311-313.
- Kimura, K., Cuvier, O. and Hirano, T. 2001. Chromosome condensation by a human condensin complex in *Xenopus* egg extracts. *J. Biol. Chem.* 276: 5417-5420.
- Cabello, O.A., Eliseeva, E., He, W.G., Youssoufian, H., Plon, S.E., Brinkley, B.R. and Belmont, J.W. 2001. Cell cycle-dependent expression and nuclear localization of hCAP-H. *Mol. Biol. Cell* 12: 3527-3537.
- Aono, N., Sutani, T., Tomonaga, T., Mochida, S. and Yanagida, M. 2002. Cnd2 has dual roles in mitotic condensation and interphase. *Nature* 417: 197-202.
- Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602332. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Heale, J.T., Ball, A.R., Schmiesing, J.A., Kim, J.S., Kong, X., Zhou, S., Hudson, D.F., Earnshaw, W.C. and Yokomori, K. 2006. Condensin I interacts with the PARP-1-XRCC1 complex and functions in DNA single-strand break repair. *Mol. Cell* 21: 837-848.
- Nousiainen, M., Silljé, H.H., Sauer, G., Nigg, E.A. and Körner, R. 2006. Phosphoproteome analysis of the human mitotic spindle. *Proc. Natl. Acad. Sci. USA* 103: 5391-5396.

CHROMOSOMAL LOCATION

Genetic locus: NcapH (mouse) mapping to 2 F1.

PRODUCT

hCAP-H (m2): 293T Lysate represents a lysate of mouse hCAP-H transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

hCAP-H (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive hCAP-H antibodies. Recommended use: 10-20 µl per lane.

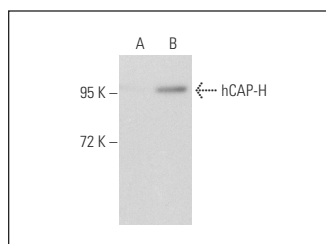
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

hCAP-H (H-6): sc-101013 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse hCAP-H expression in hCAP-H 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-IgGκ BP-HRP: sc-516102 or m-IgGκ 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



hCAP-H (H-6): sc-101013. Western blot analysis of hCAP-H expression in non-transfected: sc-117752 (A) and mouse hCAP-H transfected: sc-126947 (B) 293T whole cell lysates.

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.

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.