

CENP-H (5): sc-136403

BACKGROUND

A replicated chromosome includes two kinetochores that control chromosome segregation during mitosis. Both centromere proteins CENP-B and CENP-H are contained in the centromeric heterochromatin between kinetochores, and are involved in maintaining sister chromatid cohesion. The highly dispersed CENP-B promotes and maintains the joining of DNA satellites in the centromere. CENP-B targets centromeric α -DNA and protects it from digestion by nucleases as well as preventing DNase or restriction enzyme digestion from affecting the morphology of centromeres. CENP-H contains a coiled-coil structure and a nuclear localization signal. CENP-H is specifically and constitutively localized to kinetochores and plays a role in the organization and function of kinetochores throughout the cell cycle.

REFERENCES

- Cooke, C.A., et al. 1990. CENP-B: a major human centromere protein located beneath the kinetochore. *J. Cell Biol.* 110: 1475-1488.
- Rieder, C.L., et al. 1998. The vertebrate cell kinetochore and its roles during mitosis. *Trends Cell Biol.* 8: 310-318.
- Barbosa-Cisneros, O., et al. 1998. Localization of the centromere protein CENP-B using scleroderma sera and evidence for a role in centromere survival. *Rev. Rhum. Engl. Ed.* 65: 15-20.
- Sugata, N., et al. 1999. Characterization of a novel kinetochore protein, CENP-H. *J. Biol. Chem.* 274: 27343-27346.
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- Izuta, H., et al. 2006. Comprehensive analysis of the ICEN (Interphase Centromere Complex) components enriched in the CENP-A chromatin of human cells. *Genes Cells* 11: 673-684.
- Orthaus, S., et al. 2006. RNAi knockdown of human kinetochore protein CENP-H. *Biochem. Biophys. Res. Commun.* 348: 36-46.
- Shigeishi, H., et al. 2006. Increased expression of CENP-H gene in human oral squamous cell carcinomas harboring high-proliferative activity. *Oncol. Rep.* 16: 1071-1075.

CHROMOSOMAL LOCATION

Genetic locus: Cenph (mouse) mapping to 13 D1.

SOURCE

CENP-H (5) is a mouse monoclonal antibody raised against amino acids 1-123 of CENP-H of mouse origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CENP-H (5) is available conjugated to agarose (sc-136403 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-136403 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-136403 PE), fluorescein (sc-136403 FITC), Alexa Fluor® 488 (sc-136403 AF488), Alexa Fluor® 594 (sc-136403 AF594) or Alexa Fluor® 647 (sc-136403 AF647), 200 μ g/ml, for IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-136403 AF680) or Alexa Fluor® 790 (sc-136403 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CENP-H (5) is recommended for detection of CENP-H of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for CENP-H siRNA (m): sc-37566, CENP-H shRNA Plasmid (m): sc-37566-SH and CENP-H shRNA (m) Lentiviral Particles: sc-37566-V.

Molecular Weight of CENP-H: 33 kDa.

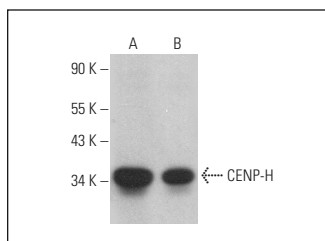
Positive Controls: C3H/10T1/2 cell lysate: sc-3801, 3T3-L1 cell lysate: sc-2243 or F9 cell lysate: sc-2245.

RECOMMENDED SUPPORT REAGENTS

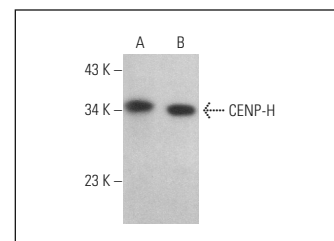
To ensure optimal results, the following support reagents are recommended:

- 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.
- Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



CENP-H (5): sc-136403. Western blot analysis of CENP-H expression in P19 (A) and F9 (B) whole cell lysates.



CENP-H (5): sc-136403. Western blot analysis of CENP-H expression in C3H/10T1/2 (A) and 3T3-L1 (B) whole cell lysates.

RESEARCH USE

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