SANTA CRUZ BIOTECHNOLOGY, INC.

CENP-B (C-16): sc-11282



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

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- 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.
- Rieder, C.L., et al. 1998. The vertebrate cell kinetochore and its roles during mitosis. Trends Cell Biol. 8: 310-318.
- 4. Sugata, N., et al. 1999. Characterization of a novel kinetochore protein, CENP-H. J. Biol. Chem. 274: 27343-27346.
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- Ohzeki, J., et al. 2002. CENP-B box is required for *de novo* centromere chromatin assembly on human alphoid DNA. J. Cell Biol. 159: 765-775.
- Suzuki, N., et al. 2004. CENP-B interacts with CENP-C domains containing Mif2 regions responsible for centromere localization. J. Biol. Chem. 279: 5934-5946.

CHROMOSOMAL LOCATION

Genetic locus: CENPB (human) mapping to 20p13; Cenpb (mouse) mapping to 2 F1.

SOURCE

CENP-B (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CENP-B of human origin.

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-11281 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

CENP-B (C-16) is recommended for detection of CENP-B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

CENP-B (C-16) is also recommended for detection of CENP-B in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CENP-B siRNA (h): sc-37557, CENP-B siRNA (m): sc-37558, CENP-B shRNA Plasmid (h): sc-37557-SH, CENP-B shRNA Plasmid (m): sc-37558-SH, CENP-B shRNA (h) Lentiviral Particles: sc-37557-V and CENP-B shRNA (m) Lentiviral Particles: sc-37558-V.

Molecular Weight of CENP-B: 80 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or CENP-B (h): 293T Lysate: sc-116535.

DATA



CENP-B (C-16): sc-11282. Western blot analysis of CENP-B expression in non-transfected: sc-117752 (A) and human CENP-B transfected: sc-116535 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

MONOS

Satisfation

Guaranteed

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

Try CENP-B (F-4): sc-376283 or CENP-B (2D-7):

sc-32285, our highly recommended monoclonal aternatives to CENP-B (C-16).