

# CENP-B (H-65): sc-22788

## 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  $\alpha$ -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

1. Cooke, C.A., et al. 1990. CENP-B: a major human centromere protein located beneath the kinetochore. *J. Cell Biol.* 110: 1475-1488.
2. 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

CENP-B (H-65) is a rabbit polyclonal antibody raised against amino acids 535-599 mapping at the C-terminus of CENP-B of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

CENP-B (H-65) 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  $\mu$ g per 100-500  $\mu$ g 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 (H-65) 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.

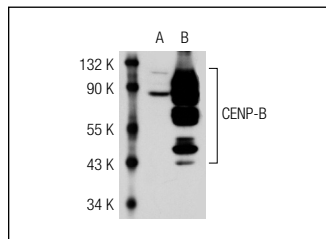
Molecular Weight of CENP-B: 80 kDa.

Positive Controls: CENP-B (h): 293T Lysate: sc-116535, A-431 whole cell lysate: sc-2201 or Jurkat whole cell lysate: sc-2204.

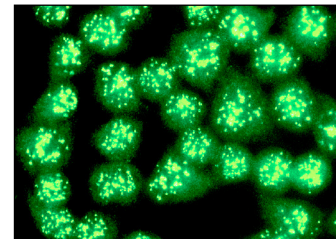
## STORAGE

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

## DATA



CENP-B (H-65): sc-22788. 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.



CENP-B (H-65): sc-22788. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

## SELECT PRODUCT CITATIONS

1. Pageau, G.J., et al. 2006. BRCA1 foci in normal S-phase nuclei are linked to interphase centromeres and replication of pericentric heterochromatin. *J. Cell Biol.* 175: 693-701.
2. Servettaz, A., et al. 2006. Anti-endothelial cell antibodies from patients with limited cutaneous systemic sclerosis bind to centromeric protein B (CENP-B). *Clin. Immunol.* 120: 212-219.
3. Bulazel, K., et al. 2006. Cytogenetic and molecular evaluation of centromere-associated DNA sequences from a marsupial (Macropodidae: *Macropus rufogriseus*) X chromosome. *Genetics* 172: 1129-1137.
4. Carone, D.M., et al. 2009. A new class of retroviral and satellite encoded small RNAs emanates from mammalian centromeres. *Chromosoma* 118: 113-125.
5. Petsalaki, E., et al. 2011. Phosphorylation at serine 331 is required for Aurora B activation. *J. Cell Biol.* 195: 449-466.
6. Kim, K., et al. 2011. The pericentriolar satellite protein CEP90 is crucial for integrity of the mitotic spindle pole. *J. Cell Sci.* 124: 338-347.
7. Petsalaki, E. and Zachos, G. 2013. Chk1 and Mps1 jointly regulate correction of merotelic kinetochore attachments. *J Cell Sci.* 126: 1235-1246.

## RESEARCH USE

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

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Satisfaction  
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Try **CENP-B (F-4): sc-376283** or **CENP-B (2D-7): sc-32285**, our highly recommended monoclonal alternatives to CENP-B (H-65).