

CENP-C (C-19): sc-11286

BACKGROUND

A replicated chromosome includes two kinetochores that control chromosome segregation during mitosis. The evolutionarily conserved centromere protein-C, CENP-C, is a kinetochore assembly protein. CENP-C is located on the fibers of the kinetochore and constitutes a kinetochore organizing center that tightly associates with DNA. CENP-C is necessary for the formation of a functional centromere, which indicates that CENP-C is important for mitotic progression. In addition, CENP-C is lost from centromeres during herpes simplex virus 1 infection, causing substantial structural changes in the kinetochore, which suggests that the structure of CENP-C is regulated during the cell cycle.

REFERENCES

1. Rieder, C.L., et al. 1998. The vertebrate cell kinetochore and its roles during mitosis. *Trends Cell Biol.* 8: 310-318.
2. Fukagawa, T., et al. 1999. CENP-C is necessary but not sufficient to induce formation of a functional centromere. *EMBO J.* 18: 4196-4209.
3. Dawe, R.K., et al. 1999. A maize homolog of mammalian CENPC is a constitutive component of the inner kinetochore. *Plant Cell* 11: 1227-1238.
4. Sugimoto, K., et al. 1999. Visualization of prekinetochore locus on the centromeric region of highly extended chromatin fibers: does kinetochore autoantigen CENP-C constitute a kinetochore organizing center? *Chromosome Res.* 7: 9-19.
5. Everett, R.D., et al. 1999. Specific destruction of kinetochore protein CENP-C and disruption of cell division by herpes simplex virus immediate-early protein Vmw110. *EMBO J.* 18: 1526-1538.
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CHROMOSOMAL LOCATIONS

Genetic locus: CENPC1 (human) mapping to 4q13.2; Cenpc1 (mouse) mapping to 5 E1.

SOURCE

CENP-C (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CENP-C 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-11286 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

CENP-C (C-19) is recommended for detection of CENP-C of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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-C (C-19) is also recommended for detection of CENP-C in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CENP-C siRNA (h): sc-37559, CENP-C siRNA (m): sc-37560, CENP-C shRNA Plasmid (h): sc-37559-SH, CENP-C shRNA Plasmid (m): sc-37560-SH, CENP-C shRNA (h) Lentiviral Particles: sc-37559-V and CENP-C shRNA (m) Lentiviral Particles: sc-37560-V.

Molecular Weight of CENP-C: 140 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or HeLa nuclear extract: sc-2120.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

PROTOCOLS

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

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Try **CENP-C (C-6): sc-166099**, our highly recommended monoclonal alternative to CENP-C (C-19).