

# CENP-F (C-19): sc-11295

## BACKGROUND

A replicated chromosome includes two kinetochores that control chromosome segregation during mitosis. Centromere Protein F, CENP-F (also designated mitotin) is a 367 kDa nuclear matrix kinetochore protein that plays a role in mitotic events. In HeLa cells, CENP-F gradually accumulates in the cell cycle, and like CENP-E is preferentially expressed during mitosis where it mediates the G(2) to M phase checkpoint. Upon completion of mitosis, CENP-F is rapidly degraded. CENP-F consists of two coil domains that flank a central flexible core and contains a P-loop (ADIPGTGKT) nucleotide binding site in its globular carboxy terminus.

## REFERENCES

1. Liao, H., et al. 1995. CENP-F is a protein of the nuclear matrix that assembles onto kinetochores at late G2 and is rapidly degraded after mitosis. *J. Cell. Biol.* 130: 507-518.
2. Zhu, X., et al. 1995. Characterization of a novel 350-kilodalton nuclear phosphoprotein that is specifically involved in mitotic-phase progression. *Mol. Cell. Biol.* 15: 5017-5029.
3. Rieder, C.L., et al. 1998. The vertebrate cell kinetochore and its roles during mitosis. *Trends Cell. Biol.* 8: 310-318.
4. Ashar, H.R., et al. 2000. Farnesyl transferase inhibitors block the farnesylation of CENP-E and CENP-F and alter the association of CENP-E with the microtubules. *J. Biol. Chem.* 275: 30451-30457.
5. Choo, K.H. 2000. Centromerization. *Trends Cell. Biol.* 10: 182-188.

## SOURCE

CENP-F (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CENP-F 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-11295 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CENP-F (C-19) is recommended for detection of CENP-F of 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).

Suitable for use as control antibody for CENP-F siRNA (h): sc-37563, CENP-F shRNA Plasmid (h): sc-37563-SH and CENP-F shRNA (h) Lentiviral Particles: sc-37563-V.

Molecular Weight of CENP-F: 400 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

## RESEARCH USE

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