SANTA CRUZ BIOTECHNOLOGY, INC.

INCENP (B-4): sc-376514

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

A replicated chromosome includes two kinetochores that control chromosome segregation during mitosis. The centromere proteins CENP-A, CENP-B, CENP-C, CENP-E, CENP-F (also designated mitosin), CENP-H and INCENP are kinetochore proteins that are involved in mitotic events. The centromere proteins are expressed at different levels throughout the cell cycle and are involved in the formation of the centromere and the organization and function of the kinetochore. INCENP, which also is designated inner centromere protein, is a chromosomal passenger protein that is crucial for chromosome segregation. During mitosis it is also required for cytokinesis onset. This protein, which can form a homodimer or a heterodimer, binds directly to microtubules and interacts with AURKB, AURKC, CBX3 and β Tubulin. This nuclear protein localizes to the mitotic spindle, methaphase chromosomes and during anaphase, to the equatorial cortex.

CHROMOSOMAL LOCATION

Genetic locus: INCENP (human) mapping to 11q12.3; Incenp (mouse) mapping to 19 A.

SOURCE

INCENP (B-4) is a mouse monoclonal antibody raised against amino acids 766-918 mapping at the C-terminus of INCENP of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

INCENP (B-4) is available conjugated to agarose (sc-376514 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376514 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376514 PE), fluorescein (sc-376514 FITC), Alexa Fluor® 488 (sc-376514 AF488), Alexa Fluor® 546 (sc-376514 AF546), Alexa Fluor® 594 (sc-376514 AF594) or Alexa Fluor® 647 (sc-376514 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376514 AF680) or Alexa Fluor® 790 (sc-376514 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

INCENP (B-4) is recommended for detection of INCENP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for INCENP siRNA (h): sc-60848, INCENP siRNA (m): sc-60849, INCENP shRNA Plasmid (h): sc-60848-SH, INCENP shRNA Plasmid (m): sc-60849-SH, INCENP shRNA (h) Lentiviral Particles: sc-60848-V and INCENP shRNA (m) Lentiviral Particles: sc-60849-V.

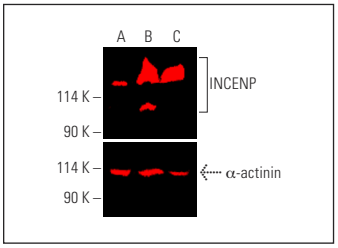
Molecular Weight of INCENP: 120 kDa.

Positive Controls: mouse prostate extract: sc-364249 or TK-1 whole cell lysate: sc-364798.

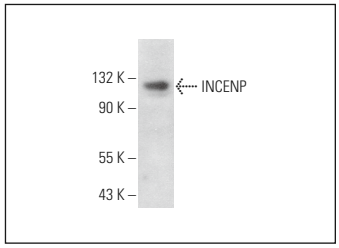
STORAGE

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

DATA



INCENP (B-4): sc-376514. Near-Infrared western blot analysis of INCENP expression in untreated HEK293T (**A**), Isoproterenol Hydrochloride-treated HEK293T (**B**) and Angiotensin II-treated HEK293T (**C**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. α-actinin (H-2): sc-17829 used as loading control. Detection reagent used: m-IgG_1 BP-CFL 790: sc-533666.



INCENP (B-4): sc-376514. Western blot analysis of INCENP expression in TK-1 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Ideue, T., et al. 2014. Involvement of satellite I noncoding RNA in regulation of chromosome segregation. Genes Cells 19: 528-538.
2. Abadía-Molina, F., et al. 2017. Neuronal apoptosis inhibitory protein (NAIP) localizes to the cytokinetic machinery during cell division. Sci. Rep. 7: 39981.
3. Park, J., et al. 2018. USP35 regulates mitotic progression by modulating the stability of Aurora B. Nat. Commun. 9: 688.
4. Lodovichi, S., et al. 2019. Computational analysis of data from a genome-wide screening identifies new PARP1 functional interactors as potential therapeutic targets. Oncotarget 10: 2722-2737.
5. Orr, B., et al. 2021. An anaphase surveillance mechanism prevents micronuclei formation from frequent chromosome segregation errors. Cell Rep. 37: 109783.
6. Yu, T., et al. 2022. SRSF1 governs progenitor-specific alternative splicing to maintain adult epithelial tissue homeostasis and renewal. Dev. Cell 57: 624-637.e4.
7. Almeida, A.C., et al. 2022. Augmin-dependent microtubule self-organization drives kinetochore fiber maturation in mammals. Cell Rep. 39: 110610.
8. Li, H., et al. 2022. Global phosphoproteomic analysis identified key kinases regulating male meiosis in mouse. Cell. Mol. Life Sci. 79: 467.
9. Stahl, P., et al. 2023. Tuning nanobodies' bioactivity: coupling to ultrasmall gold nanoparticles allows the intracellular interference with survivin. Small 19: e2300871.

RESEARCH USE

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