Revision 1

Store at -20C

#2786

INCENP (A841) Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:
W, IF-IC, FC-FP	H	Endogenous	140	Rabbit

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunofluorescence (Immunocytochemistry)	1:50
Flow Cytometry (Fixed/Permeabilized)	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

INCENP (A841) Antibody detects endogenous levels of total INCENP protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to amino acids surrounding Ala841 of human INCENP. Antibodies are purified by peptide affinity chromatography.

Background

INCENP (inner centromere protein antigens 135 kDa, 155 kDa) is a chromosomal passenger protein crucial for multiple events that mediate chromosome separation during mitosis (1). At prophase INCENP is associated with chromatin whereas during prometaphase and metaphase it translocates to the inner centromere (1). Depletion of INCENP results in aberrant chromosome alignment at the metaphase plate, incomplete chromosome separation, and disruption of proper spindle formation and cytokinesis (2). INCENP is part of the chromosomal passenger complex that also contains Aurora B, borealin and survivin (2). Aurora B and INCENP are mutually dependent on each other for proper localization (3), and in Drosophila cells and *C.elegans* embryos that lack INCENP or survivin, Aurora B cannot organize the kinetochores and the midbody (4,5). Phosphorylation on INCENP by CDK1 on Thr59 and Thr388 leads to the association of INCENP with Plk1, another important regulator of mitotic entry and exit (6). Interaction of INCENP with Plk1 is necessary for recruitment of Plk1 to the kinetochores, and the metaphase to anaphase transition (6). Interactions have also been reported between INCENP and heterochromatin protein 1α (HP1) (7) and β-tubulin (8).

Background References

1. Carmena, M. and Earnshaw, W.C. (2006) *Nat Cell Biol* 8, 110-1.
2. Carmena, M. and Earnshaw, W.C. (2003) *Nat Rev Mol Cell Biol* 4, 842-54.
3. Kaitna, S. et al. (2000) *Curr Biol* 10, 1172-81.
4. Speliotes, E.K. et al. (2000) *Mol Cell* 6, 211-23.
5. Adams, R.R. et al. (2001) *J Cell Biol* 153, 865-80.
6. Goto, H. et al. (2006) *Nat Cell Biol* 8, 180-7.
7. Ainsztein, A.M. et al. (1998) *J Cell Biol* 143, 1763-74.
8. Wheatley, S.P. et al. (2001) *Exp Cell Res* 262, 122-7.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: Human

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