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INCENP (P240) Antibody

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For Research Use Only. Not For Use In Diagnostic Procedures.

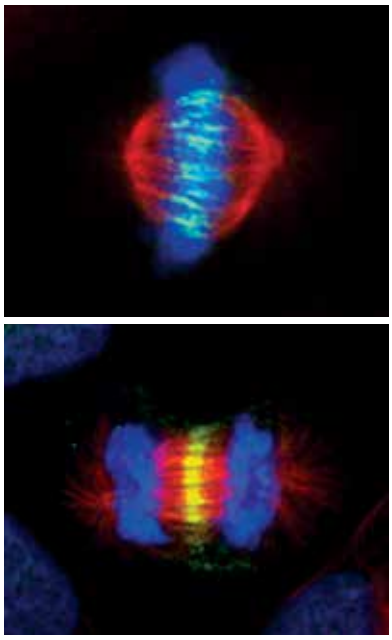
Entrez-Gene ID #3619
Swiss-Prot Acc. #Q9NQS7

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IF-IC, F Endogenous	H	140 kDa	Rabbit**

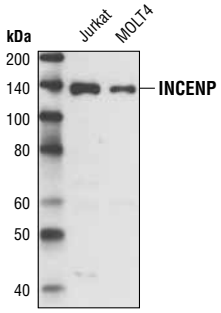
Background: INCENP (inner centromere protein antigens 135 kDa, 155 kDa) is a chromosomal passenger protein crucial for multiple events that mediate chromosome separation during mitosis (1). At prophase INCENP is associated with chromatin whereas during prometaphase and metaphase it translocates to the 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).

Specificity/Sensitivity: INCENP (P240) Antibody detects endogenous levels of total INCENP protein.

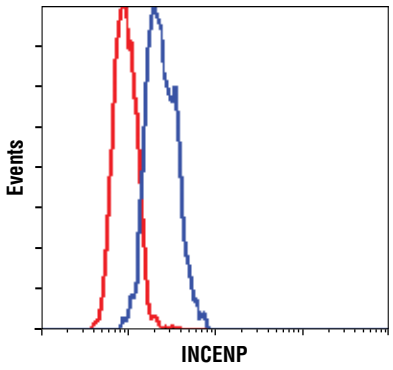
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to amino acids surrounding Pro240 of human INCENP. Antibodies are purified by peptide affinity chromatography.



Confocal immunofluorescent analysis of mitotic HeLa cells during metaphase (top) or anaphase (bottom) using INCENP (P240) Antibody (green) and β-Tubulin (9F3) Rabbit mAb (Alexa Fluor® 555 Conjugate) #2116 (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).



Western blot analysis of extracts of Jurkat and MOLT4 cells using INCENP (P240) Antibody.



Flow cytometric analysis of Jurkat cells, using INCENP (P240) Antibody (blue) compared to a nonspecific negative control antibody (red).

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

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunofluorescence (IF-IC)	1:400
Flow Cytometry	1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

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.

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

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—Horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.