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INCENP Monoclonal Antibody (58-217)

Catalog Number 39-2800

Product data sheet

Details	
Size	100 µg
Host/Isotope	Mouse / IgG1
Class	Monoclonal
Type	Antibody
Clone	58-217
Immunogen	Recombinant human INCENP (inner centromere protein)
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Protein A
Storage buffer	PBS, pH 7.4
Contains	0.1% sodium azide
Storage Conditions	-20°C

Species Reactivity	
Species reactivity	Human
Published species	Human, Mouse

Tested Applications	Dilution *
ELISA (ELISA)	Assay-dependent
Immunoprecipitation (IP)	Assay-dependent
Western Blot (WB)	Assay-dependent
Immunocytochemistry (ICC/IF)	5 µg/mL

Published Applications	
Western Blot (WB)	See 3 publications below
Immunocytochemistry (ICC/IF)	See 4 publications below

* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

Background/Target Information

Chromosomal passenger proteins are members of a group of proteins that move from centromeres to the spindle midzone during mitosis. INCENP (Inner Centromere Protein) is a chromosomal passenger protein with an essential role in mitosis and meiosis. It is a complex highly basic multidomain protein that is dynamically translocated from metaphase chromosomes to the spindle midzone during or just prior to anaphase. Some INCENP transfers to the equatorial cortex before formation of the cleavage furrow. Ultimately, it is discarded in the midbody at the completion of cytokinesis.

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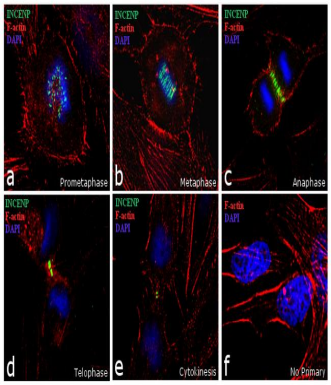
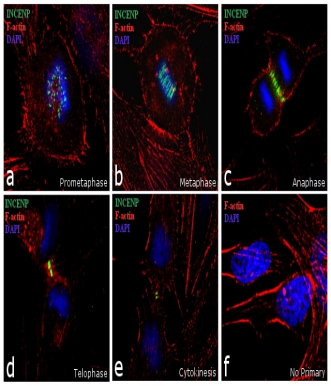
Product Images For INCENP Monoclonal Antibody (58-217)



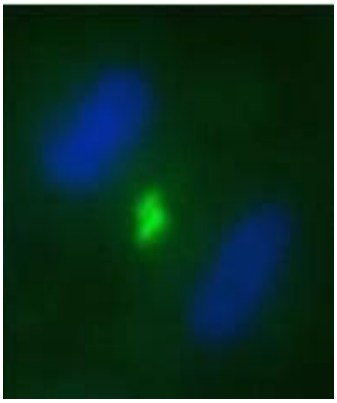
INCENP Antibody (39-2800)

Detection of differential subcellular localization of the target protein demonstrates antibody specificity. Immunofluorescence analysis of INCENP using INCENP Monoclonal Antibody (Product # 39-2800) shows localization of INCENP in the centromeres of cells in metaphase. Progression of cells through subsequent phases of the cell cycle results in translocation of INCENP to the spindle midzone at anaphase, midbodies at telophase, followed by degradation during cytokinesis. {RE}



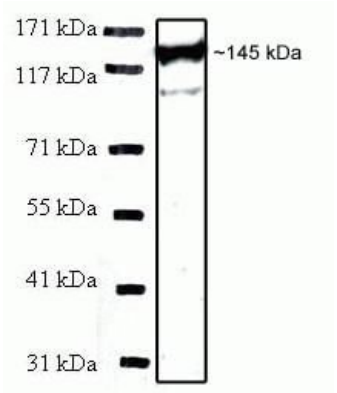
INCENP Antibody (39-2800) in ICC/IF

Immunofluorescence analysis of INCENP was performed using 70% confluent log phase HeLa cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 10 minutes, and blocked with 1% BSA for 1 hour at room temperature. The cells were labeled with INCENP Mouse Monoclonal Antibody (Product # 39-2800) at 5µg/mL in 0.1% BSA and incubated for 3 hours at room temperature and then labeled with Goat anti-Mouse IgG (H+L) Superclonal™ Secondary Antibody, Alexa Fluor® 488 conjugate (Product # A28175) a dilution of 1:2000 for 45 minutes at room temperature. Panel a,b,c,d and e represents the merged image showing localization of INCENP in different phases of cell cycle. Panel f shows the no primary antibody control. Nuclei were stained with SlowFade® Gold Antifade Mountant with DAPI (S36938). F-actin (Panel c: red) was stained with Alexa Fluor® 555 Rhodamine Phalloidin (Product # R415, 1:300). The images were captured at 60X magnification.



INCENP Antibody (39-2800) in ICC/IF

Indirect immunofluorescent staining of HeLa cells using Ms anti-INCENP (Product # 39-2800) (green). Nuclei are stained with DAPI (blue).



INCENP Antibody (39-2800) in WB

Western blot analysis of HeLa nuclear extracts using Zymed Ms anti-INCENP (Product # 39-2800).

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PubMed References For INCENP Monoclonal Antibody (58-217)

3 Western Blot References

Species / Dilution	Summary
Human / Not Cited	39-2800 was used in Western Blotting to indicate that control of cytokinesis initiation by the chromosomal passenger complex (CPC) requires its directional MKLP2-dependent transport. Current biology : CB (2020; 30: 2628) **"MKLP2 Is a Motile Kinesin that Transports the Chromosomal Passenger Complex during Anaphase."** Author(s):Adriaans IE,Hooikaas PJ,Aher A,Vromans MJM,van Es RM,Grigoriev I,Akhmanova A,Lens SMA PubMed Article URL:http://dx.doi.org/10.1016/j.cub.2020.04.081
Human / 1:500	39-2800 was used in Western Blotting to investigate the use of baculoviral vectors as a delivery vehicle for CRISPR/Cas9 based genome-editing tools. PloS one (2017; 12:) **"Baculoviral delivery of CRISPR/Cas9 facilitates efficient genome editing in human cells."** Author(s):Hindriksen S,Bramer AJ,Truong MA,Vromans MJM,Post JB,Verlaan-Klink I,Snippert HJ,Lens SMA,Hadders MA PubMed Article URL:http://dx.doi.org/10.1371/journal.pone.0179514
Human / 1:1000	39-2800 was used in Western Blotting to demonstrate that the ubiquitously expressed transcription factor specificity protein 1 (Sp1), which we have previously linked to aneuploidy, has a mitosis-specific role regulating chromosome segregation. Chromosoma (2022; 131: 175) **"Transcription factor Sp1 regulates mitotic chromosome assembly and segregation."** Author(s):Flashner S,Swift M,Sowash A,Fahmy AN,Azizkhan-Clifford J PubMed Article URL:http://dx.doi.org/10.1007/s00412-022-00778-z

4 Immunocytochemistry References

Species / Dilution	Summary
Human / 1:1000	39-2800 was used in Immunocytochemistry-immunoflourescence to demonstrate that the mitosis-specific CDK11p58 kinase specifically forms a complex with cyclin L1 that, in late cytokinesis, localizes to the stem body, a structure in the middle of the intercellular bridge that forms between two dividing cells. The Journal of biological chemistry (2019; 294: 18639) **"CDK11^{p58}-cyclin L1 regulates abscission site assembly."** Author(s):Renshaw MJ,Panagiotou TC,Lavoie BD,Wilde A PubMed Article URL:http://dx.doi.org/10.1074/jbc.RA119.009107
Human / Not Cited Mouse / Not Cited	Cell cycle (Georgetown, Tex.) (2009; 8: 2385) **"The active form of the metabolic sensor: AMP-activated protein kinase (AMPK) directly binds the mitotic apparatus and travels from centrosomes to the spindle midzone during mitosis and cytokinesis."** Author(s):Vazquez-Martin A,Oliveras-Ferraros C,Menendez JA PubMed Article URL:http://dx.doi.org/10.4161/cc.8.15.9082
Human / 1:150	392800 was used in immunocytochemistry to analyze the localization of chromosomal passenger complex (CPC) after treatment with HDACi during cell division. Methods in molecular biology (Clifton, N.J.) (2018; 1510: 47) **"Analysis of HDACi-Induced Changes in Chromosomal Passenger Complex Localization."** Author(s):Unruhe-Knauf B,Knauer SK PubMed Article URL:http://dx.doi.org/10.1007/978-1-4939-6527-4_4
Human / Not Cited	39-2800 was used in immunocytochemistry to study the colocalization of Ser2481-autophosphorylated mTOR and chromosomal passenger proteins during mammalian cell cytokinesis Cell cycle (Georgetown, Tex.) (2012; 11: 4211) **"Ser2481-autophosphorylated mTOR colocalizes with chromosomal passenger proteins during mammalian cell cytokinesis."** Author(s):Vazquez-Martin A,Sauri-Nadal T,Menendez OJ,Oliveras-Ferraros C,Cufí S,Corominas-Faja B,López-Bonet E,Menendez JA PubMed Article URL:http://dx.doi.org/10.4161/cc.22551

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