

INCENP Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1738a**Specification****INCENP Antibody - Product Information**

Application	WB, IHC, FC, ICC, E
Primary Accession	O9NQS7
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	105.4kDa KDa

Description

In mammalian cells, 2 broad groups of centromere-interacting proteins have been described: constitutively binding centromere proteins and 'passenger,' or transiently interacting, proteins (reviewed by Choo, 1997). The constitutive proteins include CENPA (centromere protein A; MIM 117139), CENPB (MIM 117140), CENPC1 (MIM 117141), and CENPD (MIM 117142). The term 'passenger proteins' encompasses a broad collection of proteins that localize to the centromere during specific stages of the cell cycle (Earnshaw and Mackay, 1994 [PubMed 8088460]). These include CENPE (MIM 117143); MCAK (MIM 604538); KID (MIM 603213); cytoplasmic dynein (e.g., MIM 600112); ClIPs (e.g., MIM 179838); and CENPF/mitosin (MIM 600236). The inner centromere proteins (INCENPs) (Earnshaw and Cooke, 1991 [PubMed 1860899]), the initial members of the passenger protein group, display a broad localization along chromosomes in the early stages of mitosis but gradually become concentrated at centromeres as the cell cycle progresses into mid-metaphase. During telophase, the proteins are located within the midbody in the intercellular bridge, where they are discarded after cytokinesis

Immunogen

Purified recombinant fragment of human INCENP (AA: 369-583) expressed in E. Coli.

Formulation

Purified antibody in PBS with 0.05% sodium azide

INCENP Antibody - Additional Information

Gene ID 3619

Other Names

Inner centromere protein, INCENP

Dilution

WB~~1/500 - 1/2000

IHC~~1/200 - 1/1000

FC~~1/200 - 1/400

ICC~~N/A

E~~1/10000

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

INCENP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

INCENP Antibody - Protein Information

Name INCENP

Function

Component of the chromosomal passenger complex (CPC), a complex that acts as a key regulator of mitosis. The CPC complex has essential functions at the centromere in ensuring correct chromosome alignment and segregation and is required for chromatin-induced microtubule stabilization and spindle assembly. Acts as a scaffold regulating CPC localization and activity. The C-terminus associates with AURKB or AURKC, the N-terminus associated with BIRC5/survivin and CDCA8/borealin tethers the CPC to the inner centromere, and the microtubule binding activity within the central SAH domain directs AURKB/C toward substrates near microtubules (PubMed:12925766, PubMed:15316025, PubMed:27332895). The flexibility of the SAH domain is proposed to allow AURKB/C to follow substrates on dynamic microtubules while ensuring CPC docking to static chromatin (By similarity). Activates AURKB and AURKC (PubMed:27332895). Required for localization of CBX5 to mitotic centromeres (PubMed:21346195). Controls the kinetochore localization of BUB1 (PubMed:16760428).

Cellular Location

Nucleus. Chromosome, centromere. Cytoplasm, cytoskeleton, spindle. Midbody. Chromosome, centromere, kinetochore. Note=Colocalized at synaptonemal complex central element from zygotene up to late pachytene when it begins to relocalize to heterochromatic chromocenters. Colocalizes with AURKB at a connecting strand traversing the centromere region and joining sister kinetochores, in metaphase II centromeres. This strand disappears at the metaphase II/anaphase II transition and relocalizes to the spindle midzone (By similarity). Colocalizes with AURKB at mitotic chromosomes (PubMed:11453556). Localizes to inner kinetochore (PubMed:16760428) Localizes on chromosome arms and inner centromeres from prophase through metaphase and then transferring to the spindle midzone and midbody from anaphase through cytokinesis (PubMed:15316025). Cocalizes to the equatorial cell cortex at anaphase (PubMed:11453556) {ECO:0000250|UniProtKB:Q9WU62, ECO:0000269|PubMed:11453556, ECO:0000269|PubMed:15316025, ECO:0000269|PubMed:16760428}

INCENP Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)

- [Flow Cytometry](#)
- [Cell Culture](#)

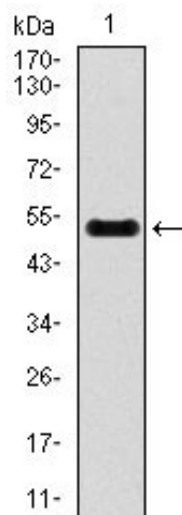
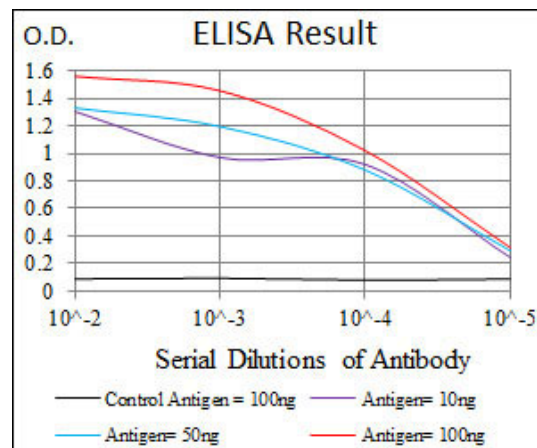


Figure 1: Western blot analysis using INCENP mAb against human INCENP recombinant protein. (Expected MW is 50.2 kDa)

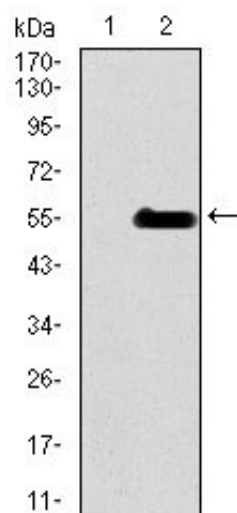


Figure 2: Western blot analysis using INCENP mAb against HEK293 (1) and INCENP (AA: 369-583)-hlgGFc transfected HEK293 (2) cell lysate.

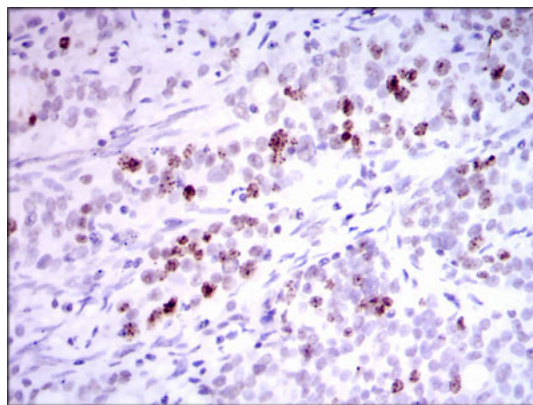


Figure 3: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using INCENP mouse mAb with DAB staining.

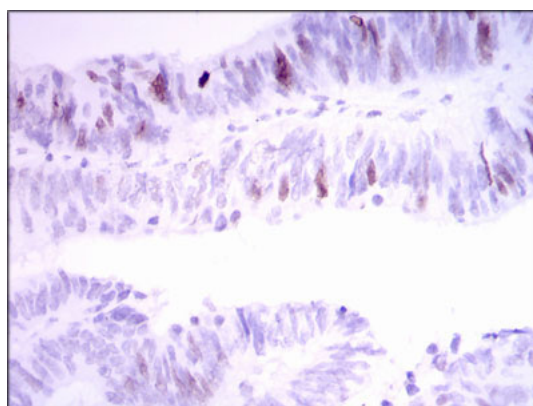


Figure 4: Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using INCENP mouse mAb with DAB staining.

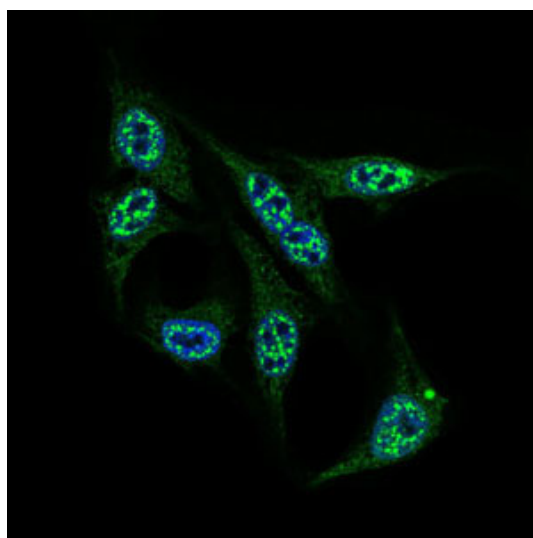


Figure 5: Immunofluorescence analysis of HepG2 cells using INCENP mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

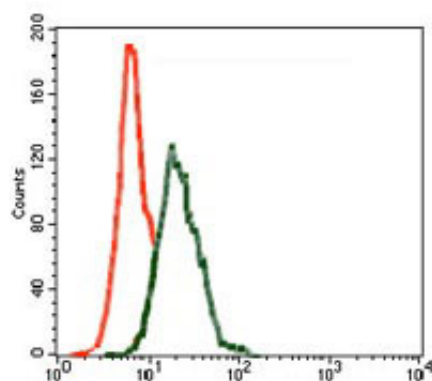


Figure 6: Flow cytometric analysis of Jurkat cells using INCENP mouse mAb (green) and negative control (red).

INCENP Antibody - References

1. J Cell Biol. 2009 Nov 30;187(5):637-53.
2. Genes Cells. 2011 Jun;16(6):652-69.