

**CENPA Antibody (Center)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP13843c****Specification**

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**CENPA Antibody (Center) - Product Information**

Application	WB,E
Primary Accession	<a href="#">P49450</a>
Other Accession	<a href="#">Q8R565</a> , <a href="#">P49449</a> , <a href="#">NP_001800.1</a> , <a href="#">NP_001035891.1</a>
Reactivity	Human
Predicted	Bovine, Hamster
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	15991
Antigen Region	82-110

**CENPA Antibody (Center) - Additional Information****Gene ID** 1058**Other Names**

Histone H3-like centromeric protein A, Centromere autoantigen A, Centromere protein A, CENP-A, CENPA

**Target/Specificity**

This CENPA antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 82-110 amino acids from the Central region of human CENPA.

**Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

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

**Precautions**

CENPA Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**CENPA Antibody (Center) - Protein Information**

**Name** CENPA

**Function** Histone H3-like nucleosomal protein that is specifically found in centromeric nucleosomes (PubMed:[11756469](#), PubMed:[14667408](#), PubMed:[15282608](#), PubMed:[15475964](#), PubMed:[15702419](#), PubMed:[17651496](#), PubMed:[19114591](#), PubMed:[20739937](#), PubMed:[27499292](#), PubMed:[7962047](#), PubMed:[9024683](#)). Replaces conventional H3 in the nucleosome core of centromeric chromatin that serves as an assembly site for the inner kinetochore (PubMed:[18072184](#)). The presence of CENPA subtly modifies the nucleosome structure and the way DNA is wrapped around the nucleosome and gives rise to protruding DNA ends that are less well-ordered and rigid compared to nucleosomes containing histone H3 (PubMed:[26878239](#), PubMed:[27499292](#)). May serve as an epigenetic mark that propagates centromere identity through replication and cell division (PubMed:[15282608](#), PubMed:[15475964](#), PubMed:[20739937](#), PubMed:[21478274](#), PubMed:[26878239](#)). Required for recruitment and assembly of kinetochore proteins, and as a consequence required for progress through mitosis, chromosome segregation and cytokinesis (PubMed:[11756469](#), PubMed:[14667408](#), PubMed:[18072184](#), PubMed:[23818633](#), PubMed:[25556658](#), PubMed:[27499292](#)).

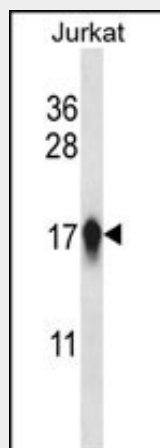
**Cellular Location**

Nucleus. Chromosome, centromere. Note=Localizes exclusively to sites of kinetochore assembly in centromeres. Occupies a compact domain at the inner kinetochore plate stretching across 2 thirds of the length of the constriction but encompassing only one third of the constriction width and height (PubMed:19114591) Phosphorylation at Ser-68 during early mitosis abolishes association with chromatin and centromeres and results in dispersed nuclear location (PubMed:25556658).

**CENPA Antibody (Center) - 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](#)

**CENPA Antibody (Center) - Images**

CENPA Antibody (Center) (Cat. #AP13843c) western blot analysis in Jurkat cell line lysates

(35ug/lane). This demonstrates the CENPA antibody detected the CENPA protein (arrow).

### **CENPA Antibody (Center) - Background**

Centromeres are the differentiated chromosomal domains that specify the mitotic behavior of chromosomes. CENPA encodes a centromere protein which contains a histone H3 related histone fold domain that is required for targeting to the centromere. CENPA is proposed to be a component of a modified nucleosome or nucleosome-like structure in which it replaces 1 or both copies of conventional histone H3 in the (H3-H4)<sub>2</sub> tetrameric core of the nucleosome particle. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq].

### **CENPA Antibody (Center) - References**

Sekulic, N., et al. Nature 467(7313):347-351(2010)  
Carroll, C.W., et al. J. Cell Biol. 189(7):1143-1155(2010)  
Maehara, K., et al. Mol. Cell. Biol. 30(9):2090-2104(2010)  
Buscaino, A., et al. Curr. Opin. Genet. Dev. 20(2):118-126(2010)  
Pironon, N., et al. BMC Genomics 11, 195 (2010) :