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CENPA Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP13843c

Specification

CENPA Antibody (Center) - Product Information

Application	**WB,E**
Primary Accession	P49450
Other Accession	Q8R565, P49449, NP_001800.1, NP_001035891.1
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).

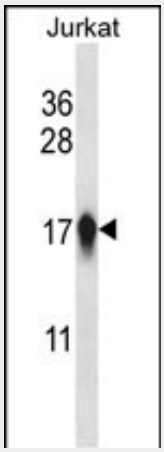
Cellular Location
Nucleus. Chromosome, centromere. Note=Localizes exclusively to sites of kinetochore assembly in centromeres. Occupies a compact domain at the inner kinetochore plate stretching across 2 thirds of the length of the constriction but encompassing only one third of the constriction width 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 Cytomety
- 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)2 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)
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