

CENPA Antibody (Center) Blocking peptide
Synthetic peptide
Catalog # BP13843c**Specification**

CENPA Antibody (Center) Blocking peptide - Product InformationPrimary Accession [P49450](#)**CENPA Antibody (Center) Blocking peptide - Additional Information****Gene ID** 1058**Other Names**

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

Target/Specificity

The synthetic peptide sequence used to generate the antibody AP13843c was selected from the Center region of CENPA. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CENPA Antibody (Center) Blocking peptide - Protein Information**Name** CENPA**Function**

Histone H3-like nucleosomal protein that is specifically found in centromeric nucleosomes (PubMed: 7962047, PubMed: 9024683, PubMed: 11756469, PubMed: 14667408, PubMed: 15702419, PubMed: 15475964, PubMed: 15282608, PubMed: 17651496, PubMed: 19114591, PubMed: 27499292, PubMed: 20739937).

Replaces conventional H3 in the nucleosome core of centromeric chromatin that serves as an assembly site for the inner kinetochore (PubMed:[18072184](http://www.uniprot.org/citations/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:[27499292](http://www.uniprot.org/citations/27499292), PubMed:[26878239](http://www.uniprot.org/citations/26878239)). May serve as an epigenetic mark that propagates centromere identity through replication and cell division (PubMed:[15475964](http://www.uniprot.org/citations/15475964), PubMed:[15282608](http://www.uniprot.org/citations/15282608), PubMed:[26878239](http://www.uniprot.org/citations/26878239), PubMed:[20739937](http://www.uniprot.org/citations/20739937), PubMed:[21478274](http://www.uniprot.org/citations/21478274)). Required for recruitment and assembly of kinetochore proteins, and as a consequence required for progress through mitosis, chromosome segregation and cytokinesis (PubMed:[11756469](http://www.uniprot.org/citations/11756469), PubMed:[14667408](http://www.uniprot.org/citations/14667408), PubMed:[18072184](http://www.uniprot.org/citations/18072184), PubMed:[23818633](http://www.uniprot.org/citations/23818633), PubMed:[25556658](http://www.uniprot.org/citations/25556658), PubMed:[27499292](http://www.uniprot.org/citations/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) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

CENPA Antibody (Center) Blocking peptide - Images

CENPA Antibody (Center) Blocking peptide - 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) Blocking peptide - 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) :