

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). 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, PubMed:26878239). May serve as an epigenetic mark that propagates centromere identity through replication and cell division (PubMed:15475964, PubMed:15282608, PubMed:26878239, PubMed:20739937, PubMed:21478274). 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) 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) :