

Anti-CENPA Picoband Antibody
Catalog # ABO12225**Specification**

Anti-CENPA Picoband Antibody - Product Information

Application	WB
Primary Accession	P49450
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Histone H3-like centromeric protein A(CENPA) detection. Tested with WB in Human;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-CENPA Picoband Antibody - Additional Information

Gene ID 1058

Other Names

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

Calculated MW

and the surrounding heterochromatin/RNAi mechanism is no longer necessary." KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Rat

Subcellular Localization

[epigenetics and nuclear signaling|histones|variants|
epigenetics and nuclear signaling|chromosome structure|centromeres|cell cycle|centromere|chip'ing antibodies

Tissue Specificity

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

Source

Histone H3-like centromeric protein A

Protein Name

15991 MW

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

Immunogen

E.coli-derived human CENPA recombinant protein (Position: M1-G140). Human CENPA shares 71.6% amino acid (aa) sequence identity with mouse CENPA.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities

Nucleus. Chromosome, centromere, kinetochore. Localizes exclusively in the kinetochore domain of 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.

Anti-CENPA Picoband Antibody - 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:<a

[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

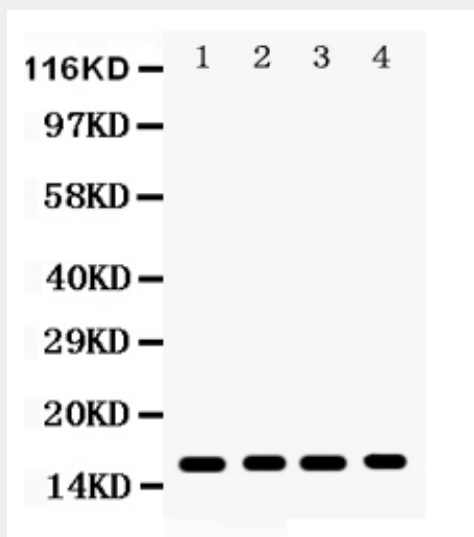
Nucleus. Chromosome, centromere. Note=Localizes exclusively to sites of kinetochore assembly in centromeres. Occupies a compact domain at the inner kinetochore plate stretching across 2 thirds of the length of the constriction but encompassing only one third of the constriction width and height (PubMed:19114591)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

Anti-CENPA Picoband 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](#)

Anti-CENPA Picoband Antibody - Images



Anti- CENPA Picoband antibody, ABO12225, Western blottingAll lanes: Anti CENPA (ABO12225) at 0.5ug/mlLane 1: Rat Liver Tissue Lysate at 50ugLane 2: Rat Lung Tissue Lysate at 50ugLane 3: Rat Pancreas Tissue Lysate at 50ugLane 4: HELA Whole Cell Lysate at 40ugPredicted bind size: 16KDObserved bind size: 16KD

Anti-CENPA Picoband Antibody - 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. And 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. In higher eukaryotes, the recruitment of CENP-A nucleosomes to existing centromeres is an epigenetic process, independent of the underlying DNA sequence. In *S.pombe*, de novo recruitment of the CENP-A to the centromere is believed to be controlled by centromeric "heterochromatin" surrounding the centromere