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Anti-CENPA Picoband Antibody

Catalog # ABO12225

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.

Additional Information

Gene ID	1058
Other Names	Histone H3-like centromeric protein A, Centromere autoantigen A, Centromere protein A, CENP-A, CENPA
Calculated MW	15991
Application Details	Western blot, 0.1-0.5 □g/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	Eukaryota
Protein Name	15991 MW
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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.

Protein Information

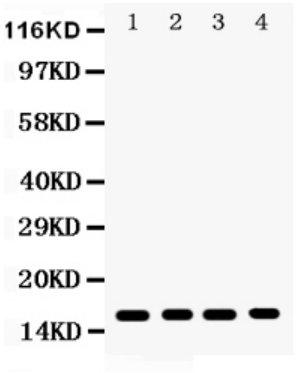
Name	CENPA
Function	Histone H3-like nucleosomal protein that is specifically found in centromeric nucleosomes (PubMed:11756469, PubMed:14667408, PubMed:15282608, PubMed:15475964, PubMed:15702419, PubMed:17651496, PubMed:19114591, PubMed:20739937, PubMed:27499292, PubMed:7962047, PubMed:9024683). Replaces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

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

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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.