Datasheet for ABIN7232821

anti-CENPA antibody

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Overview

Quantity:	100 µg
Target:	CENPA
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CENPA antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

Product Details

Purpose:	Anti-CENP-A Mouse Monoclonal Antibody
Immunogen:	Synthetic peptide corresponding to a sequence within human CENP-A.
Clone:	5A7-2E11
Isotype:	IgG1
Specificity:	This antibody recognizes human CENP-A. Reactivity with other species has not been investigated.
Cross-Reactivity:	Human

Target Details

Target:	CENPA
Alternative Name:	CENPA (CENPA Products)

Target Details

Background:	Histone H3-like centromeric protein A,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 at the inner plate of the 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). {PubMed:11756469, PubMed:14667408, PubMed:15282608, PubMed:15475964, PubMed:15702419, PubMed:17651496, PubMed:18072184, PubMed:19114591, PubMed:21478274, PubMed:23818633, PubMed:25556658, PubMed:26878239, PubMed:27499292, PubMed:7962047, PubMed:9024683, PubMed:20739937}.,Replicated chromosomes include two kinetochores that control chromosome segregation during mitosis. Centromere Protein-A (CENP-A), a histone H3-like protein, contains a C-terminal H3-like domain which is required for centromere localization of CENP-A. It is essential for kinetochore targeting of CENP-C. In the presence of DNA, CENP-A forms an octameric complex with histones H2A, H2B, and H4. CENP-A specifically localizes to active centromeres and is a component of specialized centromeric nucleosomes on which kinetochores are assembled. CENP-A is essential for nucleosomal packaging of centromeric DNA at interphase and functions as a centromere formation marker on chromosomes.,Nucleus, Chromosome, centromere, kinetochore, Chromosome, centromere,Centromere autoantigen A, Centromere protein A, CENP-A
NCBI Accession:	NP_001035891
UniProt:	P49450
Pathways:	Chromatin Binding, Maintenance of Protein Location

Application Details

Application Notes:	Immunoblotting: use at 1 µg/mL. A band of ~18 kDa is detected.Detection of CENP-A in lysate

Application Details

	of U2OS cellsELISA: use at 1-10 µg/mL with CENP-A on the solid phase. Positive control: U2OS cell lysate These are recommended concentrations, Enduser should determine optimal concentrations for their applications.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Reconstitution:	Dilute in PBS or medium that is identical to that used in the assay system.
Concentration:	1.0 mg/mL
Buffer:	PBS, pH 7.4, 50 % glycerol, 0.09 % sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	This antibody is stable for at least one (1) year at -20°C.