

KD-Validated Anti-CENPA Rabbit Monoclonal Antibody
Rabbit monoclonal Antibody
Catalog # AGI2196**Specification****KD-Validated Anti-CENPA Rabbit Monoclonal Antibody - Product Information**

Application	WB
Primary Accession	P49450
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 16 kDa, observed, 18 kDa kDa
Gene Name	CENPA
Aliases	CENPA; Centromere Protein A; CENP-A; Histone H3-Like Centromeric Protein A; CenH3; Centromere-Specific Histone; Centromere Protein A, 17kDa; Centromere Autoantigen A; Centromere Protein A (17kD)
Immunogen	A synthesized peptide derived from human CENPA

KD-Validated Anti-CENPA Rabbit Monoclonal Antibody - Additional Information

Gene ID	1058
Other Names	
Histone H3-like centromeric protein A, Centromere autoantigen A, Centromere protein A, CENP-A, CENPA	

KD-Validated Anti-CENPA Rabbit Monoclonal 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:<a

[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:[26878239](http://www.uniprot.org/citations/26878239), PubMed:[27499292](http://www.uniprot.org/citations/27499292)). May serve as an epigenetic mark that propagates centromere identity through replication and cell division (PubMed:[15282608](http://www.uniprot.org/citations/15282608), PubMed:[15475964](http://www.uniprot.org/citations/15475964), PubMed:[20739937](http://www.uniprot.org/citations/20739937), PubMed:[21478274](http://www.uniprot.org/citations/21478274), PubMed:[26878239](http://www.uniprot.org/citations/26878239)). 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

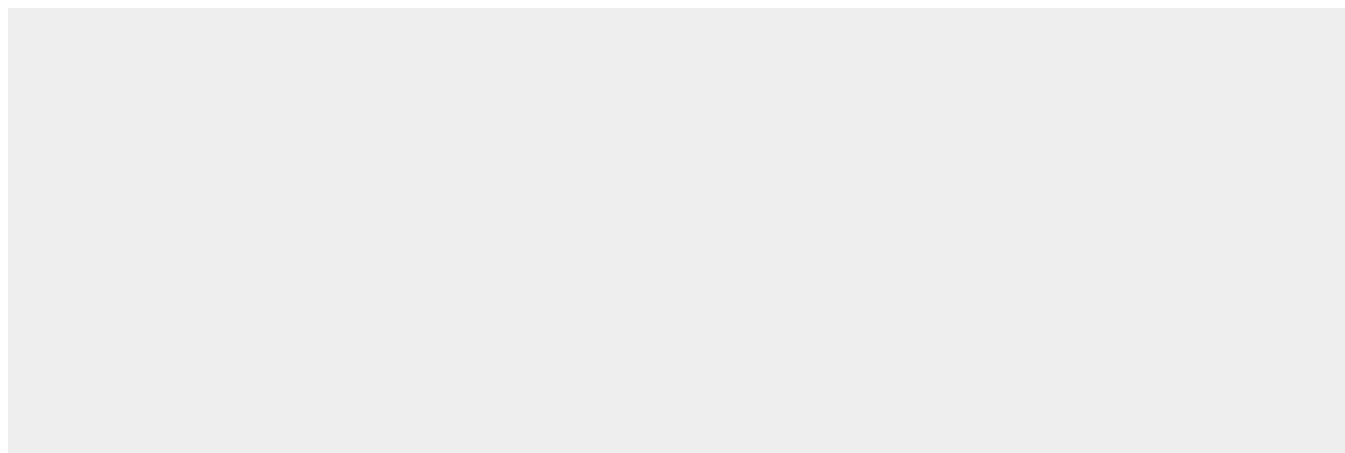
Nucleus. Chromosome, centromere. Note=Localizes exclusively to sites of kinetochore assembly in centromeres. Occupies a compact domain at the inner kinetochore plate stretching across 2 thirds of the length of the constriction but encompassing only one third of the constriction width and height (PubMed:19114591)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

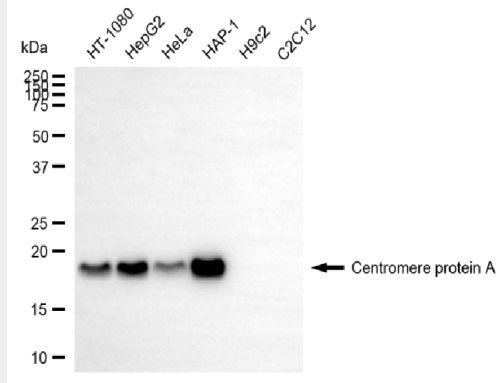
KD-Validated Anti-CENPA Rabbit Monoclonal Antibody - Protocols

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](#)

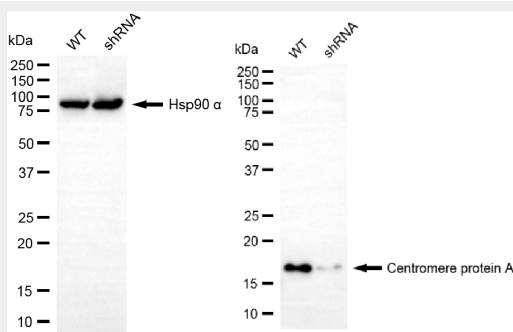
KD-Validated Anti-CENPA Rabbit Monoclonal Antibody - Images





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Western blotting analysis using anti-centromere protein A antibody (Cat#AGI2196). Total cell lysates (30 μ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-centromere protein A antibody (Cat#AGI2196, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



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Western blotting analysis using anti-centromere protein A antibody (Cat#AGI2196). Centromere protein A expression in wild-type (WT) and centromere protein A (CENPA) shRNA knockdown (KD) HeLa cells with 20 μ g of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-centromere protein A antibody (Cat#AGI2196, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.