

Product Name: CENP-A (phospho Ser7) Rabbit Polyclonal Antibody**Catalog #: APRab04438**

For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	ICC/IF,ELISA
Reactivity	Human,Rat,Mouse
Conjugation	Unconjugated
Modification	Phosphorylated
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	ICC/IF 1:200-1:1000,ELISA 1:5000-1:20000
Molecular Weight	

Antigen Information

Gene Name	CENPA
Alternative Names	CENPA; Histone H3-like centromeric protein A; Centromere autoantigen A; Centromere protein A; CENP-A
Gene ID	1058.0
SwissProt ID	P49450
Immunogen	The antiserum was produced against synthesized peptide derived from human Centromeric Protein A around the phosphorylation site of Ser7. AA range:1-50

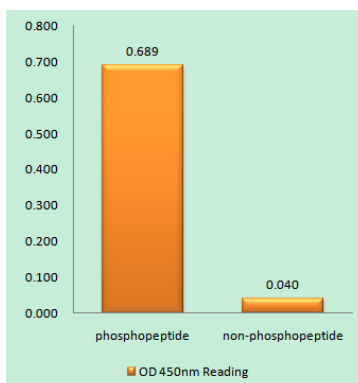
Background

Centromeres are the differentiated chromosomal domains that specify the mitotic behavior of chromosomes. This gene encodes a centromere protein which contains a histone H3 related histone fold domain that is required for targeting to the centromere. Centromere protein A 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. The protein is a replication-independent histone that is a member of the histone H3 family. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Nov 2015],disease:Antibodies against CENPA are present in sera from patients with autoimmune diseases that developed autoantibodies against centrosomal proteins.,domain:The CATD (CENPA targeting domain) region is responsible for the more compact structure of nucleosomes containing CENPA and is necessary and sufficient to mediate the localization into centromeres.,function:Histone H3-like variant which exclusively replaces conventional H3 in the nucleosome core of centromeric chromatin at the inner plate of the kinetochore. Required for recruitment and assembly of kinetochore proteins, mitotic progression and chromosome segregation. May serve as an epigenetic mark that propagates centromere identity through replication and cell division.,PTM:Phosphorylation of Ser-7 by Aurora-A/STK6 and Aurora-B/STK12 during prophase is required for localization of Aurora-A/STK6 and Aurora-B/STK12 at inner centromere and is essential for kinetochore function. Initial phosphorylation during prophase is mediated by Aurora-A/STK6 and is maintained by Aurora-B/STK12.,PTM:Ubiquitinated (Probable). Interaction with herpes virus HSV-1 ICP0 protein, leads to its degradation by the proteasome pathway.,similarity:Belongs to the histone H3 family.,subcellular location:Localizes exclusively in the kinetochore domain of centromeres.,subunit:Forms a nucleosome-like histone octamer containing two molecules each of H2A, H2B, CENPA and H4 assembled in one CENPA-H4 heterotetramer and two H2A-H2B heterodimers. Nucleosomes containing CENPA also contain histone H2A variants such as macroH2A H2AFY and H2A.Z/H2AFZ. The CENPA-H4 heterotetramer is more compact and structurally more rigid than corresponding H3-H4 heterotetramers. Component of the CENPA-NAC complex, at least composed of CENPA, CENPC, CENPH, CENPM, CENPN, CENPT and MLF11P/CENPU. Interacts (via CATD domain) with HJURP; the interaction is direct and is required for its localization to centromeres. Interacts directly with herpes virus HSV-1 ICP0 protein.,

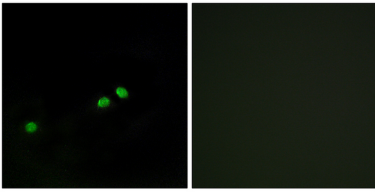
Research Area

Epigenetics and Nuclear Signaling

Image Data



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right) , using Centromeric Protein A (Phospho-Ser7) Antibody



Immunofluorescence analysis of HeLa cells, using Centromeric Protein A (Phospho-Ser7) Antibody. The picture on the right is blocked with the phospho peptide.