

CENP-A Rabbit pAb

CatalogNo: YT0853

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse

Applications

- IHC, IF, ELISA

MW

- 16kD (Calculated)

Isotype

- IgG

Recommended Dilution Ratios

IHC 1:100-1:300

IF 1:200-1:1000

ELISA 1:10000

Not yet tested in other applications.

Storage

Storage*

-15°C to -25°C/1 year (Do not lower than -25°C)

Formulation

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality

Polyclonal

Immunogen Information

Immunogen

The antiserum was produced against synthesized peptide derived from human Centromeric Protein A. AA range:1-50

Specificity

CENP-A Polyclonal Antibody detects endogenous levels of CENP-A protein.

Target Information

Gene name CENPA

Protein Name Histone H3-like centromeric protein A

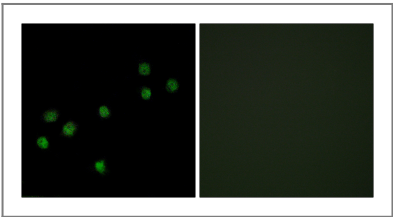
Organism	Gene ID	UniProt ID
Human	1058 ;	P49450 ;
Mouse		O35216 ;

Cellular Localization Nucleus . Chromosome, centromere, kinetochore . Chromosome, centromere . 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 (PubMed:19114591). Phosphorylation at Ser-68 during early mitosis abolishes association with chromatin and centromeres and results in dispersed nuclear location (PubMed:25556658). .

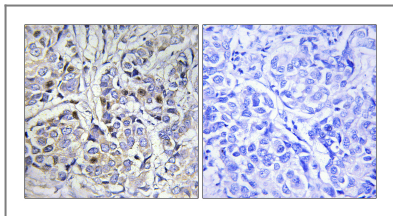
Tissue specificity Epithelium,Uterus,

Function 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 MLF1IP/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.,

Validation Data



Immunofluorescence analysis of HepG2 cells, using Centromeric Protein A Antibody. The picture on the right is blocked with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using Centromeric Protein A Antibody. The picture on the right is blocked with the synthesized peptide.

| Contact information

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CENP-A Rabbit pAb

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