



CENP-A Polyclonal Antibody

Catalog No	YP-Ab-16707
Isotype	IgG
Reactivity	Human;Rat;Mouse;
Applications	IHC;IF;ELISA
Gene Name	CENPA
Protein Name	Histone H3-like centromeric protein A
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.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	CENPA; Histone H3-like centromeric protein A; Centromere autoantigen A; Centromere protein A; CENP-A
Observed Band	
Cell Pathway	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

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],

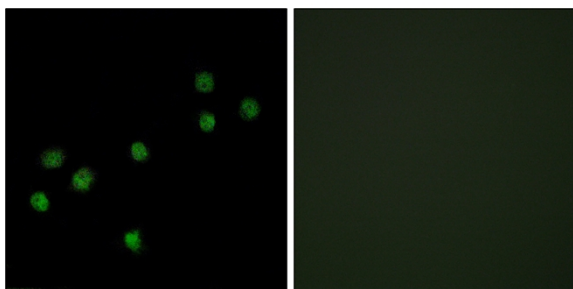
matters needing attention

Avoid repeated freezing and thawing!

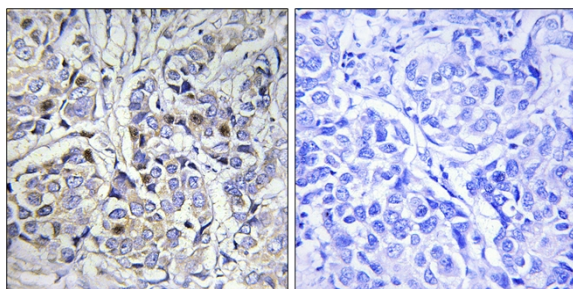
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



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.