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ASF1A Rabbit pAb

Catalog # AP98486

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9Y294
Other Accession	Q9Y294
Reactivity	Human, Mouse
Predicted	Rat, Pig
Host	Rabbit
Clonality	Polyclonal
Calculated MW	22969
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ASF1A
Epitope Specificity	101-204/204
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the ASF1 family.
SUBUNIT	Interacts with histone H3 (including both histone H3.1 and H3.3) and histone H4. Interacts with the CHAF1A, CHAF1B and RBBP4 subunits of the CAF-1 complex. Interacts with CABIN1, HAT1, HIRA, NASP, TAF1, TLK1, TLK2 and UBN1. Interacts with CDAN1. Found in a cytosolic complex with CDAN1, ASF1B, IPO4 and histones H3.1 and H4.
Post-translational modifications	Phosphorylated by TLK1 and TLK2. Highly phosphorylated in S-phase and at lower levels in M-phase. TLK2-mediated phosphorylation at Ser-192 prevents proteasome-dependent degradation.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	ASF1a belongs to the H3/H4 family of histone chaperone proteins. The protein is a key component of a histone donor complex that functions in nucleosome assembly. It interacts with histones H3 and H4, and functions together with a chromatin assembly factor during DNA replication, repair and silencing.

Additional Information

Gene ID	25842
Other Names	CGI-98; CIA; HSPC146; 2310079C17Rik; ASF1A_HUMAN; ASF1A; Anti-silencing function protein 1 homolog A (hAsf1 | hAsf1a); CCG1-interacting factor A (CIA | hCIA); ASF1A_MOUSE; Anti-silencing function protein 1 homolog A; anti-silencing function 1A histone chaperone; ASF1 anti-silencing function 1 homolog A (S. cerevisiae)
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1ug/Test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	ASF1A {ECO:0000303|PubMed:10759893, ECO:0000312|HGNC:HGNC:20995}
Function	Histone chaperone that facilitates histone deposition and histone exchange and removal during nucleosome assembly and disassembly (PubMed:10759893, PubMed:11897662, PubMed:12842904, PubMed:14718166, PubMed:15664198, PubMed:16151251, PubMed:21454524). Cooperates with chromatin assembly factor 1 (CAF-1) to promote replication-dependent chromatin assembly and with HIRA to promote replication-independent chromatin assembly (PubMed:11897662, PubMed:14718166, PubMed:15664198). Promotes homologous recombination-mediated repair of double-strand breaks (DSBs) at stalled or collapsed replication forks: acts by mediating histone replacement at DSBs, leading to recruitment of the MMS22L-TONSL complex and subsequent loading of RAD51 (PubMed:29478807). Also involved in the nuclear import of the histone H3-H4 dimer together with importin-4 (IPO4): specifically recognizes and binds newly synthesized histones with the monomethylation of H3 'Lys-9' and acetylation at 'Lys-14' (H3K9me1K14ac) marks, and diacetylation at 'Lys-5' and 'Lys-12' of H4 (H4K5K12ac) marks in the cytosol (PubMed:21454524, PubMed:29408485). Required for the formation of senescence-associated heterochromatin foci (SAHF) and efficient senescence-associated cell cycle exit (PubMed:15621527).
Cellular Location	Nucleus. Chromosome
Tissue Location	Ubiquitously expressed.

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