

## **Product datasheet for TA392792M**

# **ASF1A Rabbit Polyclonal Antibody**

#### **Product data:**

**Product Type:** Primary Antibodies

Applications: WB

Recommended Dilution: WB: 1:1000~1:2000

Reactivity: Human, Rat

Host: Rabbit Isotype: IgG

Clonality: Polyclonal

**Immunogen:** Synthetic peptide, corresponding to amino acids 120-180 of Human Asf1a.

**Specificity:** Asf1a (H150) pAb detects endogenous levels of Asf1a protein.

Formulation: Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

Concentration: 1mg/ml

Conjugation: Unconjugated

Storage: Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze-thaw cycles.

Stability: 1 year

Predicted Protein Size: ~ 22 kDa

**Gene Name:** anti-silencing function 1A histone chaperone

**Database Link:** Entrez Gene 25842 Human

Q9Y294



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#### Background:

ASF1 was first identified in S. cerevisiae based on its ability to de-repress transcriptional silencing when overexpressed. While only one gene exists in yeast and Drosophila, mammalian cells contain the two highly homologous ASF1A and ASF1B genes. ASF1A and ASF1B function as histone chaperones, delivering histone H3/H4 dimers to CAF-1 or HIRA histone deposition complexes to facilitate replication-coupled and replication-independent nucleosome assembly on DNA. Both ASF1A and ASF1B bind to CAF-1, but only ASF1A binds to HIRA. In addition to playing a role in DNA replication and gene silencing, ASF1 functions in DNA damage repair, genome stability and cellular senescence. Deletion of ASF1 in yeast and Drosophila confers sensitivity to various DNA damaging agents and inhibitors of DNA replication, increases genomic instability and sister chromatid exchange, and activates the DNA damage checkpoint. Depletion of both ASF1A and ASF1B in mammalian cells results in the accumulation of cells in S phase, increased phosphorylation of H2A.X, centrosome amplification and apoptosis. ASF1A is required for the formation of senescence-associated heterochromatin foci (SAHF), with overexpression of ASF1A inducing senescence in primary cells. Both ASF1A and ASF1B are phosphorylated in S phase by the Tousled-like kinases TLK1 and TLK2, and are dephosphorylated when TLK1 and TLK2 are inactivated by Chk1 kinase in response to replicative stress. The function of ASF1 phosphorylation is not yet understood.

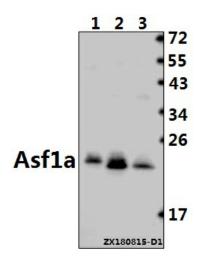
Synonyms:

Anti-silencing function protein 1 homolog A; ASF1A; CCG1-interacting factor A; CGI-98; CIA; hAsf1; hAsf1a; hCIA; Histone chaperone ASF1A; HSPC146

Note:

For research use only, not for use in diagnostic procedure.

### **Product images:**



Western blot (WB) analysis of Asf1a (H150) pAb at 1:1000 dilution Lane1:The Testis tissue lysate of Rat(40ug) Lane2:HEK293T whole cell lysate(40ug) Lane3:A549 whole cell lysate(40ug)