

# ASF1B (C-6): sc-393169

## BACKGROUND

ASF1A (anti-silencing function 1A) is a transcription factor that has been shown to bind with HeLa cell core Histones H3 and H4. Human ASF1A, which shares 71% amino acid identity to ASF1B, is believed to act as a chaperone to derepress genes since that action is observed in yeast ASF1A. High phosphorylation of ASF1A is demonstrated during the S phase of the cell cycle. Both ASF1A and B are phosphorylated by the proteins TLK1 and TLK2. The ASF1B gene has been mapped to chromosome 19p13.12 while the ASF1A gene localizes to 6q22.31. ASF1A and B cooperate in the formation of nucleosomes along with the protein CAF1.

## REFERENCES

- Schwabish, M.A., et al. 2006. Asf1 mediates histone eviction and deposition during elongation by RNA polymerase II. *Mol. Cell* 22: 415-422.
- Sen, S.P., et al. 2006. TLK1B promotes repair of UV-damaged DNA through chromatin remodeling by Asf1. *BMC Mol. Biol.* 7: 37.
- Bao, Y., et al. 2006. Asf1, a loveseat for a histone couple. *Cell* 127: 458-460.
- English, C.M., et al. 2006. Structural basis for the histone chaperone activity of Asf1. *Cell* 127: 495-508.
- Antczak, A.J., et al. 2006. Structure of the yeast Histone H3-ASF1 interaction: implications for chaperone mechanism, species-specific interactions, and epigenetics. *BMC Struct. Biol.* 6: 26.
- Mousson, F., et al. 2007. The histone chaperone Asf1 at the crossroads of chromatin and DNA checkpoint pathways. *Chromosoma* 116: 79-93.

## CHROMOSOMAL LOCATION

Genetic locus: ASF1B (human) mapping to 19p13.12; Asf1b (mouse) mapping to 8 C3.

## SOURCE

ASF1B (C-6) is a mouse monoclonal antibody raised against amino acids 1-202 representing full length ASF1B of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ASF1B (C-6) is available conjugated to agarose (sc-393169 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393169 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393169 PE), fluorescein (sc-393169 FITC), Alexa Fluor® 488 (sc-393169 AF488), Alexa Fluor® 546 (sc-393169 AF546), Alexa Fluor® 594 (sc-393169 AF594) or Alexa Fluor® 647 (sc-393169 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393169 AF680) or Alexa Fluor® 790 (sc-393169 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## RESEARCH USE

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

## APPLICATIONS

ASF1B (C-6) is recommended for detection of ASF1B of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ASF1B siRNA (h): sc-72563, ASF1B siRNA (m): sc-72564, ASF1B shRNA Plasmid (h): sc-72563-SH, ASF1B shRNA Plasmid (m): sc-72564-SH, ASF1B shRNA (h) Lentiviral Particles: sc-72563-V and ASF1B shRNA (m) Lentiviral Particles: sc-72564-V.

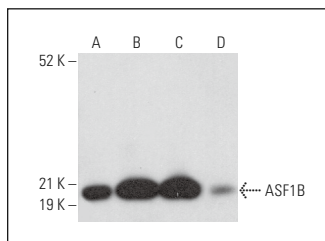
Molecular Weight of ASF1B: 22 kDa.

Positive Controls: NTERA-2 cl.D1 whole cell lysate: sc-364181, Jurkat nuclear extract: sc-2132 or HeLa nuclear extract: sc-2120.

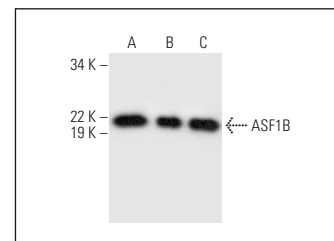
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



ASF1B (C-6): sc-393169. Western blot analysis of ASF1B expression in HeLa nuclear extract (A) and HEL 92.1.7 (B), CCRF-CEM (C) and MTE1D (D) whole cell lysates.



ASF1B (C-6): sc-393169. Western blot analysis of ASF1B expression in NTERA-2 cl.D1 whole cell lysate (A) and Jurkat (B) and HeLa (C) nuclear extracts.

## SELECT PRODUCT CITATIONS

- Zhang, W., et al. 2021. ASF1B promotes oncogenesis in lung adenocarcinoma and other cancer types. *Front. Oncol.* 11: 731547.
- Chen, C., et al. 2022. ASF1B is a novel prognostic predictor associated with cell cycle signaling pathway in gastric cancer. *J. Cancer* 13: 1985-2000.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.