Data Sheet (Cat.No.TMAY-02728)

TargetMol

Anti-ASF1B Antibody (4E343)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	4E343
Purification:	Protein A

Applications

Verified Activity:	1. ASF1B was immunoprecipitated using: -Lane A:0.5 mg K562 Whole Cell Lysate -0.5 µL anti-ASF1B rabbit monoclonal antibody and 60 µg of Immunomagnetic beads Protein G. -Primary antibody: -Anti-ASF1B rabbit monoclonal antibody, at 1:500 dilution. -Secondary antibody: -Dylight 800-labeled antibody to rabbit IgG (H+L), at 1:5000 dilution. -Developed using the odyssey technique. -Performed under reducing conditions. -Predicted band size: 22 kDa. -Observed band size: 22 kDa. 2. Anti-ASF1B rabbit monoclonal antibody at 1:500 dilution. -Lane A: K562 Whole Cell lysate. -Lysates/proteins at 30 µg per lane. -Secondary -Goat Anti-Rabbit IgG H&L (Dylight800) at 1/10000 dilution. -Developed using the Odyssey technique. -Performed under reducing conditions. -Predicted band size:22 kDa. -Observed band size:22 kDa
Application:	IP,WB
Recommended	WB: 1:500-1:2000; IP: 0.5-2 µL/mg of lysate

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen: Recombinant Protein: Human ASF1B Protein (TMPY-03341)

Antigen Species: Human

Synonyms: anti-silencing function 1B histone chaperone;CIA-II

Research Background

The histone chaperone anti-silencing factor 1a (ASF1a) interacts with MDC1 and is recruited to sites of DSBs to facilitate the interaction of phospho-ATM with MDC1 and phosphorylation of MDC1, which are required for the recruitment of RNF8/RNF168 histone ubiquitin ligases. Thus, ASF1a deficiency reduces histone ubiquitination at DSBs, decreasing the recruitment of 53BP1, and decreases NHEJ, rendering cells more sensitive to DSBs. This role of ASF1a in DSB repair cannot be provided by the closely related ASF1b and does not require its histone chaperone activity. Homozygous deletion of ASF1A is seen in 10%-15% of certain cancers, suggesting that loss of NHEJ may be selected in some malignancies and that the deletion can be used as a molecular biomarker for cancers susceptible to radiotherapy or to DSB-inducing chemotherapy. Anti-silencing function 1 (ASF1) is a histone H3-H4 chaperone involved in DNA replication and repair, and transcriptional regulation. Here, we identify ASF1B, the mammalian paralog to ASF1, as a proliferation-inducing histone chaperone in human β-cells. Overexpression of ASF1B led to distinct transcriptional signatures consistent with increased cellular proliferation and reduced cellular death.

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