SANTA CRUZ BIOTECHNOLOGY, INC.

ATF-7IP (E-6): sc-514220

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ATF-7IP (activating transcription factor 7-interacting protein 1, MBD1-containing chromatin-associated factor 1) is a 1,270 amino acid protein encoded by the human gene ATF7IP. ATF-7IP can act both as an activator or a repressor depending on the context. ATF-7IP functions as a recruiter that couples transcriptional factors to general transcription apparatus and thereby modulates transcription regulation and chromatin formation. It mediates MBD1-dependent transcriptional repression, probably by recruiting complexes containing SETDB1. ATF-7IP is required to stimulate the histone methyltransferase activity of SETDB1 and it facilitates the conversion of dimethylated to trimethylated H3 Lys-9. The complex formed by ATF-7IP, MBD1 and SETDB1 also acts to couple DNA methylation to histone Lys-9 trimethylation.

REFERENCES

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3. Ichimura, T., Watanabe, S., Sakamoto, Y., Aoto, T., Fujita, N. and Nakao, M. 2005. Transcriptional repression and heterochromatin formation by MBD1 and MCAF/AM family proteins. J. Biol. Chem. 280: 13928-13935.
4. Chang, L.K., Chung, J.Y., Hong, Y.R., Ichimura, T., Nakao, M. and Liu, S.T. 2005. Activation of Sp1-mediated transcription by Rta of Epstein-Barr virus via an interaction with MCAF1. Nucleic Acids Res. 33: 6528-6539.
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CHROMOSOMAL LOCATION

Genetic locus: ATF7IP (human) mapping to 12p13.1.

SOURCE

ATF-7IP (E-6) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of ATF-7IP of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

ATF-7IP (E-6) is recommended for detection of ATF-7IP of 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 ATF-7IP siRNA (h): sc-96134, ATF-7IP shRNA Plasmid (h): sc-96134-SH and ATF-7IP shRNA (h) Lentiviral Particles: sc-96134-V.

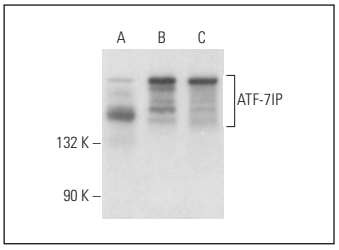
Molecular Weight of ATF-7IP: 137 kDa.

Positive Controls: A549 cell lysate: sc-2413, MOLT-4 cell lysate: sc-2233 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

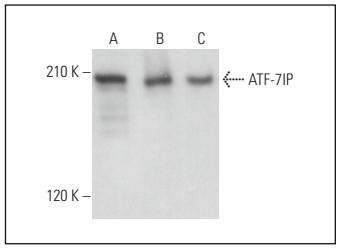
RECOMMENDED SUPPORT REAGENTS

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



ATF-7IP (E-6): sc-514220. Western blot analysis of ATF-7IP expression in A549 (**A**), MOLT-4 (**B**) and NTERA-2 cl.D1 (**C**) whole cell lysates.



ATF-7IP (E-6): sc-514220. Western blot analysis of ATF-7IP expression in HEL 92.1.7 whole cell lysate (**A**) and Jurkat (**B**) and MCF7 (**C**) nuclear extracts. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.