

ATMIN Antibody

Catalog # ASC11793

Product Information

Application	WB, IF, ICC, E
Primary Accession	O43313
Other Accession	NP_056066 , 54792092
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	88348
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	ATMIN antibody can be used for detection of ATMIN by Western blot at 1 - 2 μ g/ml. Antibody can also be used for Immunocytochemistry at 5 μ g/mL. For Immunofluorescence start at 2.5 μ g/mL.

Additional Information

Gene ID	23300
Other Names	ATM interactor, ATM/ATR-substrate CHK2-interacting zinc finger protein, ASCIZ, Zinc finger protein 822, ATMIN, KIAA0431, ZNF822
Target/Specificity	ATMIN; ATMIN antibody is human, mouse and rat reactive. At least three isoforms of ATMIN are known to exist.
Reconstitution & Storage	ATMIN antibody can be stored at 4°C for three months and -20°C, stable for up to one year.
Precautions	ATMIN Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ATMIN
Synonyms	KIAA0431, ZNF822
Function	Transcription factor. Plays a crucial role in cell survival and RAD51 foci formation in response to methylating DNA damage. Involved in regulating the activity of ATM in the absence of DNA damage. May play a role in stabilizing ATM. Binds to the DYNLL1 promoter and activates its transcription.
Cellular Location	Nucleus. Note=Nuclear, in discrete foci during G1 phase
Tissue Location	Ubiquitously expressed in normal tissues and cancer cell lines with highest

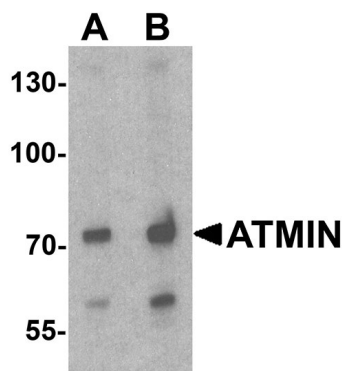
Background

The ATM/ATR-substrate CHK2-interacting zinc finger protein (ATMIN), also known as ASCIZ, forms DNA damage-induced nuclear foci that contain the DNA repair protein Rad51 (1). ATMIN is also thought to be involved in embryonic development, as an absence of ATMIN causes late-embryonic lethality in mice with a range of organ development defects (2). It also activates the transcription DYNLL1, a light chain of the dynein motor complex and sequence-specific regulator of protein dimerization of numerous targets. DYNLL1 can bind to and inhibit the transcription activation domain of ATMIN, forming a simple dynamic feedback loop for DYNLL1 expression (3).

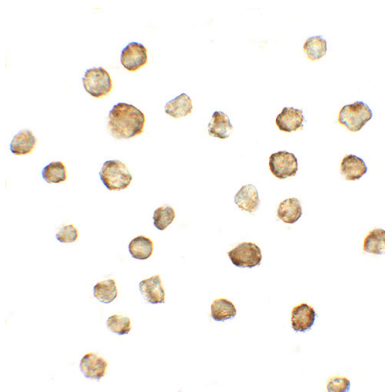
References

- McNees CJ, Conlan LA, Tennis N, et al. ASCIZ regulates lesion-specific Rad51 focus formation and apoptosis after methylating DNA damage. *EMBO J.* 2005; 24:2447-57.
- Jurado S, Smyth I, van Denderen B, et al. Dual functions of ASCIZ in the DNA base damage response and pulmonary organogenesis. *PLoS Genet.* 2010; 6:e1001170.
- Jurado S, Conlan LA, Baker EK, et al. ATM substrate Chk2-interacting Zn²⁺ finger (ASCIZ) is a bi-functional transcriptional activator and feedback sensor in the regulation of Dynein Light Chain (DYNLL1) expression. *J. Biol. Chem.* 2012; 287:3156-64.

Images

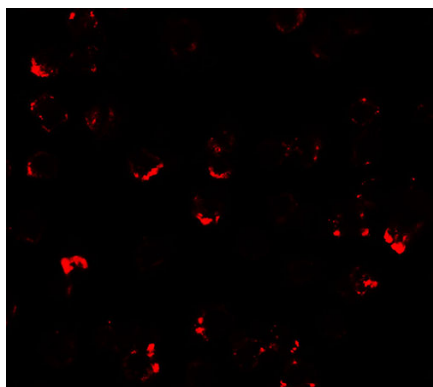


Western blot analysis of ATMIN in 293 cell lysate with ATMIN antibody at (A) 1 and (B) 2 µg/ml.



Immunocytochemistry of ATMIN in A431 cells with ATMIN antibody at 5 µg/mL.

Immunofluorescence of ATMIN in A431 cells with ATMIN antibody at 2.5 µg/mL.



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