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ATMIN Antibody
Catalog # ASC11793

Specification

ATMIN Antibody - Product Information

Application	**WB, ICC, IF**
Primary Accession	O43313
Other Accession	NP_056066, 54792092
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**Predicted: 73, 79, 91 kDa** **Observed: 72 kDa KDa**
Application Notes	**ATMIN antibody can be used for detection of ATMIN by Western blot at 1 - 2 µg/ml. Antibody can also be used for Immunocytochemistry at 5 µg/mL. For Immunoflorescence start at 2.5 µg/mL.**

ATMIN Antibody - Additional Information

Gene ID	**23300**

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℃ for three months and -20℃, stable for up to one year.

Precautions
ATMIN Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ATMIN Antibody - 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

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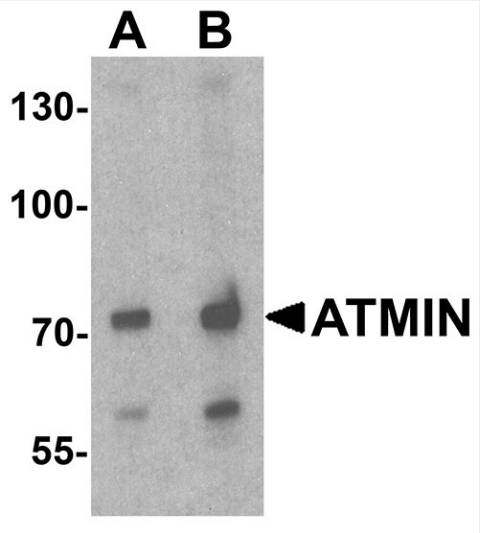
Tissue Location
Ubiquitously expressed in normal tissues and cancer cell lines with highest levels in placenta and skeletal muscle

ATMIN Antibody - Protocols

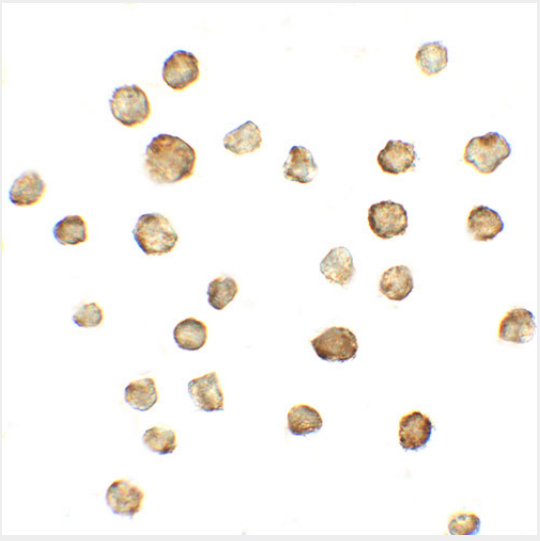
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ATMIN Antibody - Images

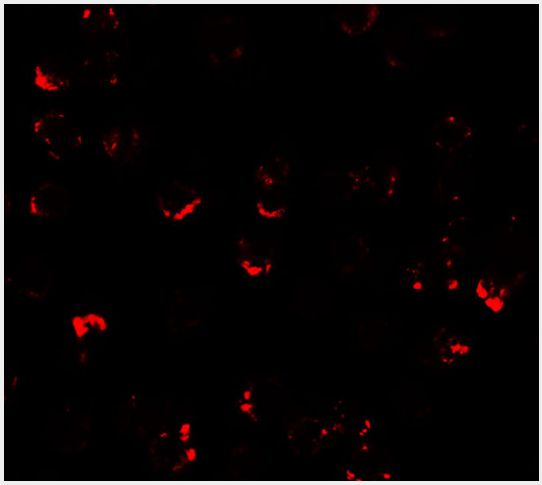


Western blot analysis of ATMIN in 293 cell lysate with ATMIN antibody at (A) 1 and (B) 2 µg/ml.



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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.

ATMIN Antibody - 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).

ATMIN Antibody - References

McNees CJ, Conlan LA, Tenis 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-interating 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.