

ATAD3A Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5324

Specification

ATAD3A Antibody (N-term) - Product Information

Application	WB,E
Primary Accession	O9NVI7
Other Accession	Q5T9A4
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	H=71,62 KDa
Isotype	Rabbit IgG
Antigen Source	HUMAN

ATAD3A Antibody (N-term) - Additional Information

Gene ID 55210

Antigen Region
24-48

Other Names
ATAD3A;ATPase family AAA domain-containing protein 3A

Dilution
WB~~1:1000

Target/Specificity
This ATAD3A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 24-48 amino acids from the N-terminal region of human ATAD3A.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ATAD3A Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

ATAD3A Antibody (N-term) - Protein Information

Name ATAD3A {ECO:0000303|PubMed:37832546, ECO:0000312|HGNC:HGNC:25567}

Function

Essential for mitochondrial network organization, mitochondrial metabolism and cell growth at organism and cellular level (PubMed: [17210950](http://www.uniprot.org/citations/17210950), PubMed: [20154147](http://www.uniprot.org/citations/20154147), PubMed: [22453275](http://www.uniprot.org/citations/22453275), PubMed: [31522117](http://www.uniprot.org/citations/31522117), PubMed: [37832546](http://www.uniprot.org/citations/37832546), PubMed: [39116259](http://www.uniprot.org/citations/39116259)). May play an important role in mitochondrial protein synthesis (PubMed: [22453275](http://www.uniprot.org/citations/22453275)). May also participate in mitochondrial DNA replication (PubMed: [17210950](http://www.uniprot.org/citations/17210950)). May bind to mitochondrial DNA D-loops and contribute to nucleoid stability (PubMed: [17210950](http://www.uniprot.org/citations/17210950)). Required for enhanced channeling of cholesterol for hormone-dependent steroidogenesis (PubMed: [22453275](http://www.uniprot.org/citations/22453275)). Involved in mitochondrial-mediated antiviral innate immunity (PubMed: [31522117](http://www.uniprot.org/citations/31522117)). Required to protect mitochondria from the PERK-mediated unfolded protein response: specifically inhibits the activity of EIF2AK3/PERK at mitochondria-endoplasmic reticulum contact sites, thereby providing a safe haven for mitochondrial protein translation during endoplasmic reticulum stress (PubMed: [39116259](http://www.uniprot.org/citations/39116259)). Ability to inhibit EIF2AK3/PERK is independent of its ATPase activity (PubMed: [39116259](http://www.uniprot.org/citations/39116259)). Also involved in the mitochondrial DNA damage response by promoting signaling between damaged genomes and the mitochondrial membrane, leading to activation of the integrated stress response (ISR) (PubMed: [37832546](http://www.uniprot.org/citations/37832546)).

Cellular Location

Mitochondrion inner membrane; Single-pass membrane protein. Mitochondrion matrix, mitochondrion nucleoid Note=In the mitochondrial inner membrane, enriched in sites with the potential to form contacts with the outer membrane (PubMed:20154147, PubMed:20349121). The N-terminal domain interacts with the inner surface of the mitochondrial outer membrane and the C-terminal domain localizes in a specific matrix compartment, where it is associated with nucleoids (PubMed:18063578). Also present at mitochondria-endoplasmic reticulum contact sites; where it interacts with EIF2AK3/PERK (PubMed:39116259).

Tissue Location

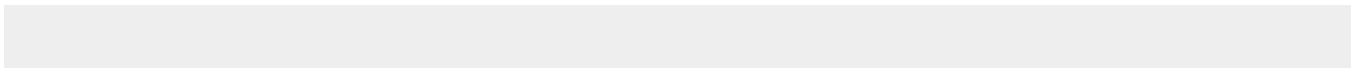
Overexpressed in lung adenocarcinomas (at protein level).

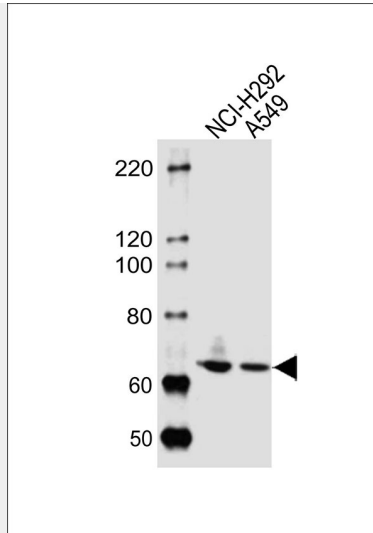
ATAD3A Antibody (N-term) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ATAD3A Antibody (N-term) - Images





Western blot analysis of lysates from NCI-H292,A549 cell line (from left to right), using ATAD3A Antibody (N-term)(Cat. #AW5324). AW5324 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.Lysates at 20ug per lane.

ATAD3A Antibody (N-term) - References

- Ota T., et al. Nat. Genet. 36:40-45(2004).
- Gregory S.G., et al. Nature 441:315-321(2006).
- Bienvenut W.V., et al. Submitted (JUL-2007) to UniProtKB.
- Daub H., et al. Mol. Cell 31:438-448(2008).
- Choudhary C., et al. Science 325:834-840(2009).