

ATAD3A Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20535a**Specification**

ATAD3A Antibody (N-term) - Product Information

Application	WB,E
Primary Accession	Q9NVI7
Other Accession	Q5T9A4
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	24-48

ATAD3A Antibody (N-term) - Additional Information**Gene ID** 55210**Other Names**

ATPase family AAA domain-containing protein 3A, ATAD3A

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.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

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](#), PubMed:[20154147](#), PubMed:[22453275](#),

PubMed:[31522117](#), PubMed:[37832546](#), PubMed:[39116259](#)). May play an important role in mitochondrial protein synthesis (PubMed:[22453275](#)). May also participate in mitochondrial DNA replication (PubMed:[17210950](#)). May bind to mitochondrial DNA D-loops and contribute to nucleoid stability (PubMed:[17210950](#)). Required for enhanced channeling of cholesterol for hormone-dependent steroidogenesis (PubMed:[22453275](#)). Involved in mitochondrial-mediated antiviral innate immunity (PubMed:[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](#)). Ability to inhibit EIF2AK3/PERK is independent of its ATPase activity (PubMed:[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](#)).

Cellular Location

Mitochondrion inner membrane; Single-pass membrane protein. Mitochondrion matrix, mitochondrion nucleoid Note=In the mitochondrion 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

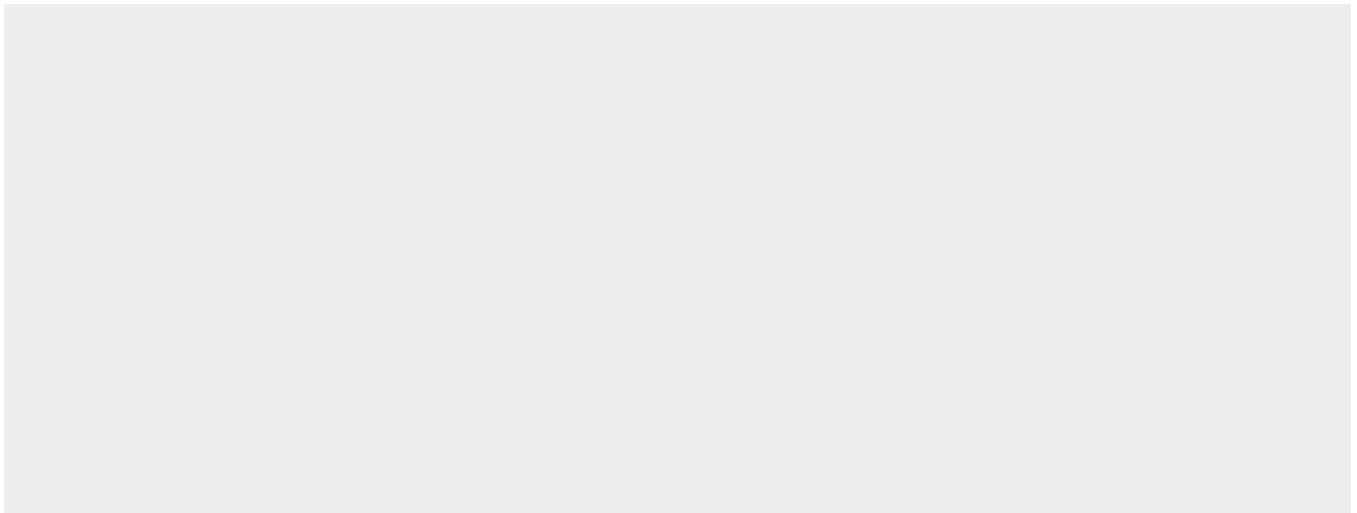
Overexpressed in lung adenocarcinomas (at protein level).

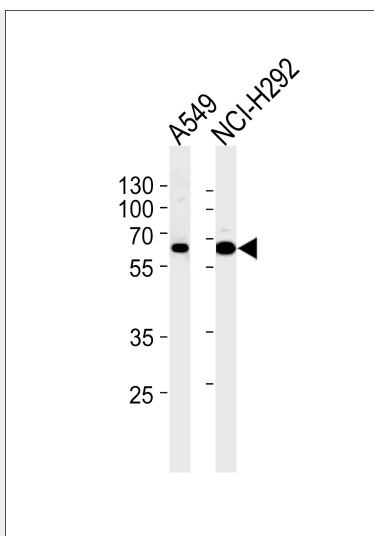
ATAD3A Antibody (N-term) - Protocols

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





ATAD3A Antibody (N-term) (Cat. #AP20535a) western blot analysis in A549, NCI-H292 cell line lysates (35ug/lane). This demonstrates the ATAD3A antibody detected the ATAD3A protein (arrow).

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).