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# AATF Antibody

Catalog # ASC10174

## Product Information

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| **Application** | WB, IF, E, IHC-P |
| **Primary Accession** | Q9NY61 |
| **Other Accession** | NP_036270, 7657013 |
| **Reactivity** | Human, Mouse |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Calculated MW** | 63133 |
| **Concentration (mg/ml)** | 1 mg/mL |
| **Conjugate** | Unconjugated |
| **Application Notes** | AATF antibody can be used for the detection of AATF by Western blot at 0.5 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 10 g/mL. For immunofluorescence start at 20 g/mL. |

## Additional Information

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| **Gene ID** | 26574 |
| **Other Names** | AATF Antibody: DED, BFR2, CHE1, CHE-1, DED, HSPC277, Protein AATF, Apoptosis-antagonizing transcription factor, apoptosis antagonizing transcription factor |
| **Target/Specificity** | AATF; |
| **Reconstitution & Storage** | AATF antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |
| **Precautions** | AATF Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | AATF ( HGNC:19235) |
| **Synonyms** | CHE1, DED |
| **Function** | Part of the small subunit (SSU) processome, first precursor of the small eukaryotic ribosomal subunit. During the assembly of the SSU processome in the nucleolus, many ribosome biogenesis factors, an RNA chaperone and ribosomal proteins associate with the nascent pre- rRNA and work in concert to generate RNA folding, modifications, rearrangements and cleavage as well as targeted degradation of pre- ribosomal RNA by the RNA exosome |

(PubMed:34516797). May function as a general inhibitor of the histone deacetylase HDAC1. Binding to the pocket region of RB1 may displace HDAC1 from RB1/E2F complexes, leading to activation of E2F target genes and cell cycle progression. Conversely, displacement of HDAC1 from SP1 bound to the CDKN1A promoter leads to increased expression of this CDK inhibitor and blocks cell cycle progression. Also antagonizes PAWR mediated induction of aberrant amyloid peptide production in Alzheimer disease (presenile and senile dementia), although the molecular basis for this phenomenon has not been described to date.

**Cellular Location** Nucleus, nucleolus

**Tissue Location** Ubiquitously expressed. Expressed at high levels in brain, heart, kidney, placenta and thymus

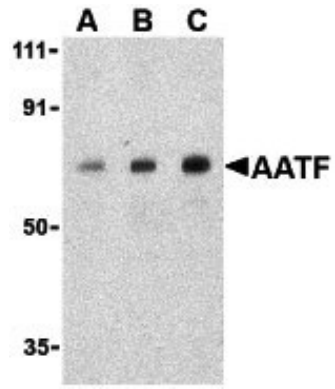
## Background

AATF Antibody: AATF (apoptosis antagonizing transcription factor) was initially discovered as an interaction partner of ZIP kinase (ZIPK), a member of death-associated protein (DAP) kinase family of pro-apoptotic serine/threonine kinases. AATF is a phosphoprotein containing an acidic region and a putative leucine zipper domain and nuclear localization signal, features which are typical of transcription factors. AATF inhibits the ZIPK-mediated pro-apoptotic pathway and may activate other anti-apoptotic pathways. Recently, it has also been shown to protect neural cells against oxidative damage induced by amyloid b-peptide and to inhibit aberrant production of the beta-peptide by interacting with Par-4 (prostate apoptosis response-4), another pro-apoptotic leucine zipper protein that is associated with neuronal degeneration in Alzheimer's disease (AD), suggesting that AATF may have potential therapeutic applications in both familial and sporadic forms of AD.

## References

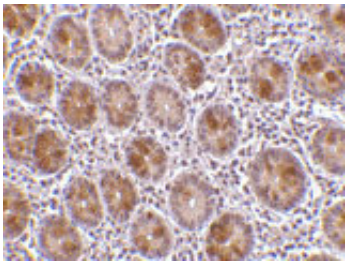
AATF antibody can be stored at 4˚C, stable for one year. Page G, Lodige I, Kogel D et al. AATF, a novel transcription factor that interacts with Dlk/ZIP kinase and interferes with apoptosis. FEBS Lett. 1999; 462:187-191.
Kawai T, Matsumoto M, Takeda K, et al. ZIP kinase, a novel serine/threonine kinase which mediates apoptosis. Mol. Cell Biol. 1998; 18:1642-51.
Lindfors K, Halttunen T, Huotari P, et al. Identification of novel transcription factor-like gene from human intestinal cells. Biochem. Biophys. Res. Commun. 2000; 276:660-6.
Xie J and Guo Q. AATF protects neural cells against oxidative damage induced by amyloid b-peptide. Neurobiol. of Dis. 2004; 16:150-7.

## Images

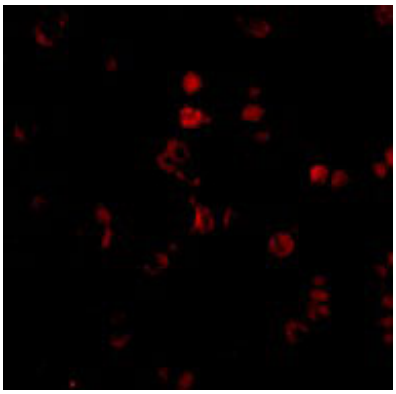



Western blot analysis of AATF in human small intestine cell lysate with AATF antibody at (A) 0.5, (B) 1 and (C) 2 µg/mL.

Immunohistochemistry of AATF in human small intestine



tissue with AATF antibody at 10 µg/mL.



Immunofluorescence of AATF in Human Small Intestine cells with AATF antibody at 20 µg/mL.

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