

ATXN3 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9244c**Specification**

ATXN3 Antibody (Center) - Product Information

Application	WB, FC, IHC-P,E
Primary Accession	P54252
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	41250
Antigen Region	261-288

ATXN3 Antibody (Center) - Additional Information**Gene ID** 4287**Other Names**

Ataxin-3, Machado-Joseph disease protein 1, Spinocerebellar ataxia type 3 protein, ATXN3, ATX3, MJD, MJD1, SCA3

Target/Specificity

This ATXN3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 261-288 amino acids from the Central region of human ATXN3.

Dilution

WB~~1:1000

FC~~1:10~50

IHC-P~~1:50~100

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

ATXN3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

ATXN3 Antibody (Center) - Protein Information**Name** ATXN3 {ECO:0000303|PubMed:33157014, ECO:0000312|HGNC:HGNC:7106}

Function Deubiquitinating enzyme involved in protein homeostasis maintenance, transcription, cytoskeleton regulation, myogenesis and degradation of misfolded chaperone substrates (PubMed:[12297501](#), PubMed:[16118278](#), PubMed:[17696782](#), PubMed:[23625928](#), PubMed:[28445460](#), PubMed:[33157014](#)). Binds long polyubiquitin chains and trims them, while it has weak or no activity against chains of 4 or less ubiquitins (PubMed:[17696782](#)). Involved in degradation of misfolded chaperone substrates via its interaction with STUB1/CHIP: recruited to monoubiquitinated STUB1/CHIP, and restricts the length of ubiquitin chain attached to STUB1/CHIP substrates and preventing further chain extension (By similarity). Interacts with key regulators of transcription and represses transcription: acts as a histone-binding protein that regulates transcription (PubMed:[12297501](#)). Acts as a negative regulator of mTORC1 signaling in response to amino acid deprivation by mediating deubiquitination of RHEB, thereby promoting RHEB inactivation by the TSC-TBC complex (PubMed:[33157014](#)). Regulates autophagy via the deubiquitination of 'Lys-402' of BECN1 leading to the stabilization of BECN1 (PubMed:[28445460](#)).

Cellular Location

Nucleus matrix. Nucleus. Lysosome membrane; Peripheral membrane protein.
Note=Predominantly nuclear, but not exclusively, inner nuclear matrix (PubMed:9580663). Recruited to lysosomal membrane in response to amino acid deprivation by the RagA/RRAGA-RagB/RRAGB complex (PubMed:33157014)

Tissue Location

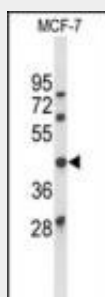
Ubiquitous.

ATXN3 Antibody (Center) - Protocols

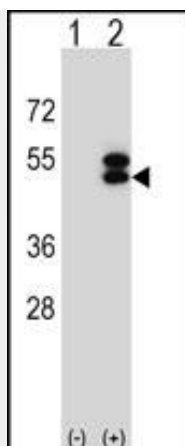
Provided below are standard protocols that you may find useful for product applications.

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

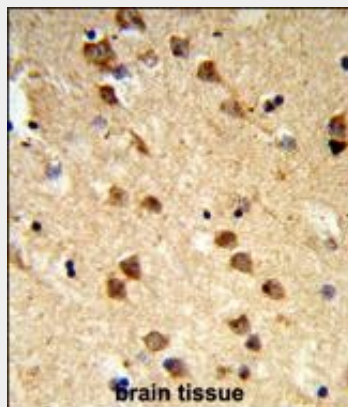
ATXN3 Antibody (Center) - Images



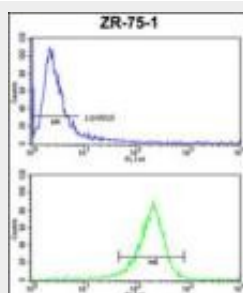
Western blot analysis of ATXN3 Antibody (Center) (Cat. #AP9244c) in MCF-7 cell line lysates (35ug/lane). ATXN3 (arrow) was detected using the purified Pab.



Western blot analysis of ATXN3 (arrow) using rabbit polyclonal ATXN3 Antibody (Center) (Cat. #AP9244c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the ATXN3 gene.



Formalin-fixed and paraffin-embedded human brain tissue reacted with ATXN3 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



ATXN3 Antibody (Center) (Cat.#AP9244c) FC analysis of ZR-75-1 cells (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

ATXN3 Antibody (Center) - Background

ATXN3 was known as spinocerebellar ataxia-3, is an autosomal dominant neurologic disorder. The protein contains (CAG)_n repeats in the coding region, and the expansion of these repeats from the normal 13-36 to 68-79 is one cause of Machado-Joseph disease. There is a negative correlation between the age of onset and CAG repeat numbers.

ATXN3 Antibody (Center) - References

Reina,C.P., et.al, Hum. Mol. Genet. 19 (2), 235-249 (2010)
Jung,J., et.al, Hum. Mol. Genet. 18 (24), 4843-4852 (2009)