

anti-Human, Rat Ataxin 3 Polyclonal Antibody | anti-ATXN3 antibody

Anti-Ataxin 3 Antibody

CATALOG #	REACTIVITY	APPLICATIONS
AAA46514	Human, Rat	Flow Cytometry, Functional Assay, Immunocytochemistry, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

Ataxin 3; Polyclonal Antibody; Anti-Ataxin 3 Antibody; Ataxin-3; AT3; ATX3; ATX3_HUMAN; ATXN3; EC 3.4.22.; JOS; Josephin; Machado Joseph disease (spinocerebellar ataxia 3; olivopontocerebellar ataxia 3; autosomal dominant; ataxin 3); Machado Joseph disease; Machado Joseph disease protein 1; Machado-Joseph disease protein 1; Machado-Joseph disease protein 1 homolog; MJD; MJD gene; MJD1; Olivopontocerebellar ataxia 3; OTTHUMP00000221583; OTTHUMP00000221585; OTTHUMP00000221586; OTTHUMP00000221587; OTTHUMP00000231995; OTTHUMP00000231997; Rsca3; SCA3; SCA3 gene; Spinocerebellar ataxia type 3 protein; ataxin 3; anti-ATXN3 antibody

PRODUCT SPECIFICATIONS

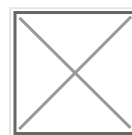
Reactivity	Human, Rat
Clonality	Polyclonal
Specificity	No cross reactivity with other proteins.
Purity/Purification	Immunogen Affinity Purified
Form/Format	Lyophilized. Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Sequence Length	346
Applicable Applications for anti-ATXN3 antibody	FCM/FACS (Flow Cytometry), ICC (Immunocytochemistry), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Ataxin 3 (226-254aa EEDLQRALALSRQEIDMEDEEADLRRAIQ), different from the related mouse and rat sequences by two amino acids.
Ig Type	Rabbit IgG
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Preparation and Storage	At -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquoted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



IF (Immunofluorescence)

Figure 5. IF analysis of ATXN3 using anti- ATXN3 antibody (PB9423)ATXN3 was detected in immunocytochemical section of U20S cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/mL rabbit anti- ATXN3 Antibody overnight at 4 degree C. DyLight 488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



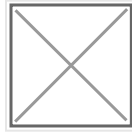
FCM/FACS (Flow Cytometry)

Figure 4. Flow Cytometry analysis of SiHa cells using anti-ATXN3 antibody (PB9423). Overlay histogram showing SiHa cells stained with PB9423 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ATXN3 Antibody (1ug/1x106 cells) for 30 min at 20 degree C. DyLight 488 conjugated goat anti-rabbit IgG (5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



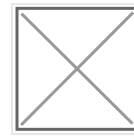
FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of A549 cells using anti-ATXN3 antibody. Overlay histogram showing A549 cells stained with PB9423 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ATXN3 Antibody (1ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight 488 conjugated goat anti-rabbit IgG (5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)

Figure 1. Western blot analysis of Ataxin 3 using anti-Ataxin 3 antibody (PB9423). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: Rat Brain Tissue Lysate, Lane 2: COLO320 Whole Cell Lysate, Lane 3: HELA Whole Cell Lysate. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Ataxin 3 antigen affinity purified polyclonal antibody at 0.5 ug/mL overnight at 4 degree C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Ataxin 3 at approximately 42KD. The expected band size for Ataxin 3 is at 42KD.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of Ataxin 3 using anti-Ataxin 3 antibody. Ataxin 3 was detected in paraffin-embedded section of Human Lung Cancer Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Ataxin 3 Antibody (PB9423) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

ADDITIONAL INFORMATION

Related Product Information for anti-ATXN3 antibody	Description: Rabbit IgG polyclonal antibody for Ataxin-3(ATXN3) detection. Tested with WB, IHC-P in Human;Rat. Background: ATXN3 (Ataxin 3), also known as AT3, MJD GENE, MJD1, SCA3 GENE, ATX3, JOS, Spinocerebellar ataxia-3, Machado-Joseph disease protein 1, is a protein that in humans is encoded by the ATXN3 gene. ATXN3 ranges in size from 360 to 374 amino acids. Using Northern blot analysis showed that ATXN3 mRNA was ubiquitously expressed in human tissues. They detected at least 4 ATXN3 transcripts of 1.4, 1.8, 4.5, and 7.5 kb and suggested that the different mRNA species probably result from differential splicing and polyadenylation. Machado-Joseph disease, also known as spinocerebellar ataxia-3, is an autosomal dominant neurologic disorder. The protein encoded by the ATXN3 gene contains (CAG)_n repeats in the coding region, and the expansion of these repeats from the normal 13-36 to 68-79 is the cause of Machado-Joseph disease. There is an inverse correlation between the age of onset and CAG repeat numbers. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. Ataxin-3 interacted with 2 human homologs of the yeast DNA repair protein RAD23, HHR23A (RAD23A) and HHR23B (RAD23B). Both normal and mutant ataxin-3 proteins interacted with the ubiquitin-like domain at the N terminus of the HHR23 proteins, which is a motif important for nucleotide excision repair. However, in HEK 293 cells, HHR23A was recruited to intranuclear inclusions formed by the mutant ataxin-3 through its interaction with ataxin-3.
References	1. Burnett, B., Li, F., Pittman, R. N. The polyglutamine neurodegenerative protein ataxin-3 binds polyubiquitylated proteins and has ubiquitin protease activity. Hum. Molec. Genet. 12: 3195-3205, 2003. 2. Paulson, H. L., Das, S. S., Crino, P. B., Perez, M. K., Patel, S. C., Gotsdiner, D., Fischbeck, K. H., Pittman, R. N. Machado-Joseph disease gene product is a cytoplasmic protein widely expressed in brain. Ann. Neurol. 41: 453-462, 1997.

NCBI AND UNIPROT INFORMATION

NCBI GI #	189163493
NCBI GeneID	4287
NCBI Accession #	NP_001121168.1
NCBI GenBank Nucleotide #	NM_001127696.1

UniProt Accession #	P54252; O15284; O15285; O15286; Q8N189; Q96TC3; Q96TC4; Q9H3N0; A7LFZ5; D6RDL9; E9PB63
NCBI Official Full Name	ataxin-3 isoform ad
NCBI Official Synonym Full Names	ataxin 3
NCBI Official Symbol	ATXN3
NCBI Official Synonym Symbols	AT3; JOS; MJD; ATX3; MJD1; SCA3
NCBI Protein Information	ataxin-3
UniProt Protein Name	Ataxin-3
UniProt Gene Name	ATXN3
UniProt Synonym Gene Names	ATX3; MJD; MJD1; SCA3
UniProt Entry Name	ATX3_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/ataxin-3-antibody-flow-cytometry-immunocytochemistry-immunohistochemistry-western-blot-elisa/46514>