10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Ataxin 7 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54452

Specification

Ataxin 7 Polyclonal Antibody - Product Information

Application	**IHC-P, IHC-F, IF, ICC, E**
Primary Accession	O15265
Reactivity	**Rat, Pig, Dog, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**95 KDa**
Physical State	**Liquid**
Immunogen	**KLH conjugated synthetic peptide derived from human Ataxin 7**
Epitope Specificity	**301-400/892**
Isotype	**IgG**
Purity affinity purified by Protein A	
Buffer	**0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.**
SUBCELLULAR LOCATION	**Cytoplasmic (isoform b) and Nuclear (isoform a)**
SIMILARITY	**Belongs to the ataxin-7 family. Contains 1 SCA7 domain.**
SUBUNIT	**Component of the STAGA transcription coactivator-HAT complex, at least composed of SUPT3H, GCN5L2, TAF5L, TAF6L, SUPT7L, TADA3L, TAD1L, TAF10, TAF12, TRRAP, TAF9 and ATXN7. The STAGA core complex is associated with a subcomplex required for histone deubiquitination composed of ATXN7L3, ENY2 and USP22. Interacts with SORBS1, PSMC1 and CRX. Interacts with TRRAP, GCN5L2 and TAF10. Interacts with alpha tubulin.**
Post-translational modifications	**Proteolytically cleaved. The cleavage may be involved in SCA7 degeneration: the isoform fragments may exert distinct toxic influences that could contribute to selective neurodegeneration.Sumoylation decreases the aggregation propensity and cellular toxicity of forms with an expanded poly-Gln region but has no effect on subcellular location or interaction with components of the STAGA complex.**
DISEASE	**Defects in ATXN7 are the cause of spinocerebellar ataxia type 7 (SCA7) [MIM:164500]; also known as**

olivopontocerebellar atrophy III (OPCA III or OPCA3) or olivopontocerebellar atrophy with retinal degeneration. Spinocerebellar ataxia is a clinically and genetically heterogeneous group of cerebellar disorders. Patients show progressive incoordination of gait and often poor coordination of hands, speech and eye movements, due to degeneration of the cerebellum with variable involvement of the brainstem and spinal cord. SCA7 belongs to the autosomal dominant cerebellar ataxias type II (ADCA II) which are characterized by cerebellar ataxia with retinal degeneration and pigmentary macular dystrophy.

Important Note

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions

The human ataxin-7 gene, also known as spinocerebellar ataxia 7 or SCA7, maps to chromosome 3p13-p12, has a 2,727-bp open reading frame, and encodes a 892 amino acid protein containing a nuclear localization signal and a polyglutamine tract (1,2). SCA7 is an autosomal dominant neurodegenerative disorder characterized by ataxia and selective neuronal cell loss caused by the expansion of a translated CAG repeat encoding a polyglutamine tract in ataxin-7, which is the SCA7 gene product (3,4). Ataxin-7 is expressed within neurons both affected and unaffected in SCA7 pathology with subcellular localization being variable depending upon the neuronal subtype (5). Polyglutamine expanded in ataxin-7 may carry out its pathogenic effects in the nucleus by altering the matrix-associated nuclear structure and/or by disrupting nucleolar function (6).

Ataxin 7 Polyclonal Antibody - Additional Information

Gene ID 6314

Other Names

Ataxin-7, Spinocerebellar ataxia type 7 protein, ATXN7, SCA7

Target/Specificity

Isoform a and isoform b are expressed in CNS, but isoform a is expressed predominantly in the peripherical tissues. Isoform b is also highly expressed in the frontal lobe, skeletal muscle and spinal cord and is expressed at a lower level in the lung, lymphoblast and intestine.

Dilution

IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Storage

Store at -20 ℃ for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 ℃.

Ataxin 7 Polyclonal Antibody - Protein Information

Name ATXN7

Synonyms SCA7 {ECO:0000303|PubMed:9288099}

Function
Acts as a component of the SAGA (aka STAGA) transcription coactivator-HAT complex (PubMed:15932940, PubMed:18206972). Mediates the interaction of SAGA complex with the CRX and is involved in CRX- dependent gene activation (PubMed:15932940, PubMed:18206972). Probably involved in tethering the deubiquitination module within the SAGA complex (PubMed:24493646). Necessary for microtubule cytoskeleton stabilization (PubMed:22100762). Involved in neurodegeneration (PubMed:9288099).

Cellular Location
[Isoform a]: Nucleus. Nucleus, nucleolus. Nucleus matrix. Cytoplasm, cytoskeleton. Note=In addition to a diffuse distribution throughout the nucleus, it is associated with the nuclear matrix and the nucleolus (PubMed:10441328). It is able to shuttle between the nucleus and cytoplasm (PubMed:16314424)

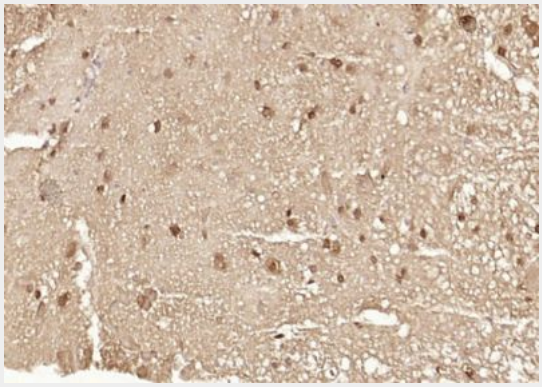
Tissue Location
[Isoform a]: Isoform a is expressed in CNS, but is expressed predominantly in the peripherical tissues

Ataxin 7 Polyclonal Antibody - Protocols

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

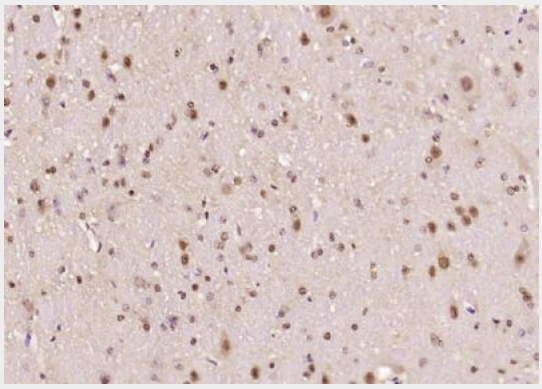
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Ataxin 7 Polyclonal Antibody - Images

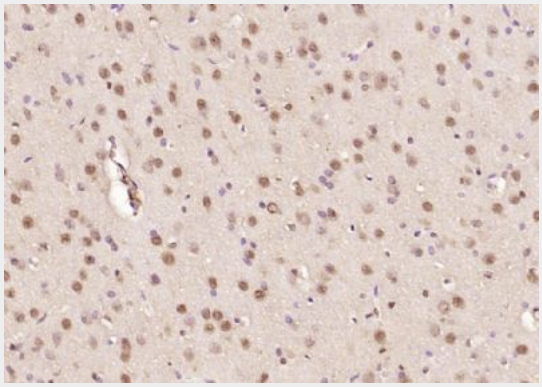


10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Paraformaldehyde-fixed, paraffin embedded (mouse spinal cord); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Ataxin 7) Polyclonal Antibody, Unconjugated (bs-11318R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (mouse cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Ataxin 7) Polyclonal Antibody, Unconjugated (bs-11318R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Ataxin 7) Polyclonal Antibody, Unconjugated (bs-11318R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.