SANTA CRUZ BIOTECHNOLOGY, INC.

ATXN1L (C-14): sc-163713

BACKGROUND

ATXN1L (ataxin-1-like) is a 689 amino acid protein that can suppress the cytotoxicity of ATXN1 in spinocerebellar ataxia type 1 (SCA1). Belonging to the ATXN1 family and localizing to nucleus, then to dendrite, ATXN1L contains one AXH domain. ATXN1L is distributed beyond the nucleus into cell bodies, dendrites in Purkinje cells and in inferior olive cells. Expressed in cerebellum and cerebral cortex, the ATXN1L protein forms nuclear foci. ATXN1L suppresses the cytotoxicity of ATXN1 in spinocerebellar ataxia type 1 (SCA1) and colocalizes with SMRTe and HDAC3. Considered a homodimer, ATXN1L interacts with Capicua. ATXN1L also interacts with SMRTe via AXH domain. The ATXN1L gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken and zebrafish and maps to human chromosome 16q22.3.

REFERENCES

1. Mizutani, A., et al. 2005. Boat, an AXH domain protein, suppresses the cytotoxicity of mutant ataxin-1. EMBO J. 24: 3339-3351.
2. Bowman, A.B., et al. 2007. Duplication of Atxn1l suppresses SCA1 neuropathology by decreasing incorporation of polyglutamine-expanded ataxin-1 into native complexes. Nat. Genet. 39: 373-379.
3. Zoghbi, H.Y., et al. 2009. Pathogenic mechanisms of a polyglutamine-mediated neurodegenerative disease, spinocerebellar ataxia type 1. J. Biol. Chem. 284: 7425-7429.
4. Carlson, K.M., et al. 2009. Characterization of the zebrafish atxn1/axh gene family. J. Neurogenet. 23: 313-323.
5. Crespo-Barreto, J., et al. 2010. Partial loss of ataxin-1 function contributes to transcriptional dysregulation in spinocerebellar ataxia type 1 pathogenesis. PLoS Genet. 6: e1001021.
6. Laget, S., et al. 2010. The human proteins MBD5 and MBD6 associate with heterochromatin but they do not bind methylated DNA. PLoS ONE 5: e11982.
7. SWISS-PROT/TrEMBL (P0C7T5). World Wide Web URL: http://www.uniprot.org/uniprot/P0C7T5

CHROMOSOMAL LOCATION

Genetic locus: ATXN1L (human) mapping to 16q22.2; Atxn1l (mouse) mapping to 8 D3.

SOURCE

ATXN1L (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ATXN1L of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-163713 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ATXN1L (C-14) is recommended for detection of ATXN1L of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other ATXN family members.

ATXN1L (C-14) is also recommended for detection of ATXN1L in additional species, including equine, canine and porcine.

Suitable for use as control antibody for ATXN1L siRNA (h): sc-93421, ATXN1L siRNA (m): sc-141376, ATXN1L shRNA Plasmid (h): sc-93421-SH, ATXN1L shRNA Plasmid (m): sc-141376-SH, ATXN1L shRNA (h) Lentiviral Particles: sc-93421-V and ATXN1L shRNA (m) Lentiviral Particles: sc-141376-V.

Molecular Weight of ATXN1L: 73 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.