ATXN7L3 (C-16): sc-241880

SANTA CRUZ®
BIOTECHNOLOGY

The Power to Question

BACKGROUND

ATXN7L3 (ataxin-7-like protein 3) is a 347 amino acid transcription protein that belongs to the SGF11 family. ATXN7L3 localizes to nucleus and contains one SCA7 domain and one SGF11-type zinc finger. The SGF11-type zinc finger of ATXN7L3 mediates the interaction with USP22 and ENY2. ATXN7L3 is a component of the transcription regulatory histone acetylation (HAT) complex SAGA, which is a multiprotein complex that activates transcription by remodeling chromatin and mediating histone acetylation and deubiquitination. Within the SAGA complex, ATXN7L3 contributes to a subcomplex that specifically deubiquitinates both histones H2A and H2B. The ATXN7L3 gene exists as two alternatively spliced isoforms, is conserved in chimpanzee, canine, bovine, rat, zebrafish, fruit fly and mosquito, and maps to human chromosome 17q21.2.

REFERENCES

1. Strausberg, et al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. Proc. Natl. Acad. Sci. USA 99: 16899-16903.

2. Helmlinger, D., et al. 2004. Ataxin-7 is a subunit of GCN5 histone acetyltransferase-containing complexes. Hum. Mol. Genet. 13: 1257-1265.

3. Zhao, Y., et al. 2008. A TFTC/STAGA module mediates histone H2A and H2B deubiquitination, coactivates nuclear receptors, and counteracts heterochromatin silencing. Mol. Cell 29: 92-101.

4. Rodríguez-Navarro, S. 2009. Insights into SAGA function during gene expression. EMBO Rep. 10: 843-850.

5. Weake, V.M., et al. 2009. A novel histone fold domain-containing protein that replaces TAF6 in *drosophila* SAGA is required for SAGA-dependent gene expression. Genes Dev. 23: 2818-2823.

6. Bonnet, J., et al. 2010. The structural plasticity of SCA7 domains defines their differential nucleosome-binding properties. EMBO Rep. 11: 612-618.

7. SWISS-PROT/TrEMBL (Q14CW9). World Wide Web URL: http://www.uniprot.org/uniprot/Q14CW9

CHROMOSOMAL LOCATION

Genetic locus: ATXN7L3 (human) mapping to 17q21.2; Atxn7l3 (mouse) mapping to 11 D.

SOURCE

ATXN7L3 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ATXN7L3 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-241880 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

ATXN7L3 (C-16) is recommended for detection of ATXN7L3 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 ATXN7L1 or ATXN7L2.

ATXN7L3 (C-16) is also recommended for detection of ATXN7L3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ATXN7L3 siRNA (h): sc-106847, ATXN7L3 siRNA (m): sc-141380, ATXN7L3 shRNA Plasmid (h): sc-106847-SH, ATXN7L3 shRNA Plasmid (m): sc-141380-SH, ATXN7L3 shRNA (h) Lentiviral Particles: sc-106847-V and ATXN7L3 shRNA (m) Lentiviral Particles: sc-141380-V.

Molecular Weight of ATXN7L3 isoforms: 39/40 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.

PROTOCOLS

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