SANTA CRUZ BIOTECHNOLOGY, INC.

Ataxin-10 (N-18): sc-49376

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Spinocerebellar ataxia (SCA) is an autosomal dominant neurodegenerative disorder characterized by ataxia and selective neuronal cell loss. SCA is caused by the expansion of a translated CAG repeat, encoding a polyglutamine tract in SCA gene products, known as ataxins. The ataxin proteins are ubiquitously expressed in nervous tissue, but are primarily detected in cerebellum, brain stem and spinal cord in the central nervous system. Ataxin-10 is a cytoplasmic protein that belongs to the family of armadillo repeat proteins. A loss of Ataxin-10 in primary neuronal cells causes increased apoptosis of cerebellar neurons. Ataxin-10 interacts with p110, an O-Linked β-N-acetylglucosamine transferase, and may be important in the regulation of intracellular glycosylation levels and homeostasis in the brain. Spinocerebellar ataxia type 10 (SCA10) is an autosomal dominant disorder that causes cerebellar ataxia and seizures. SCA10 is caused by an expansion of an ATTCT pentanucleotide repeat in intron 9 of the Ataxin-10 gene.

REFERENCES

1. März, P., et al. 2004. Ataxin-10, the is essential for survival of cerebellar neurons. J. Biol. Chem. 279: 35542-35550.
2. Teive, H.A., et al. 2004. Clinical phenotype of Brazilian families with spinocerebellar Ataxia-10. Neurology 63: 1509-1512.
3. Handa, V., et al. 2005. The AUUCU repeats responsible for spinocerebellar Ataxia type 10 form unusual RNA hairpins. J. Biol. Chem. 280: 29340-29345.
4. Lin, X., et al. 2005. Recent progress in spinocerebellar ataxia type 10 (SCA10). Cerebellum 4: 37-42.
5. Matsuura, T., et al. 2005. Interruptions in repeat purity as a disease modifier? Am. J. Hum. Genet. 78: 125-129.
6. Seixas, A.I., et al. 2005. FXTAS, SCA10 and SCA17 in American patients with movement disorders. Am. J. Med. Genet. A 136: 87-89.
7. Shin, C., et al. 2005. Conformational analysis in solution of protein kinase C βII V5-1 peptide. Biochem. Biophys. Res. Commun. 337: 154-159.
8. März, P., et al. 2006. Ataxin-10 interacts with O-linked β-N-acetylglucosamine transferase in the brain. J. Biol. Chem. 281: 20263-20270.
9. Wakamiya, M., et al. 2006. The role of Ataxin-10 in the pathogenesis of spinocerebellar ataxia type 10. Neurology 67: 607-613.

CHROMOSOMAL LOCATION

Genetic locus: ATXN10 (human) mapping to 22q13.31; Atxn10 (mouse) mapping to 15 E2.

SOURCE

Ataxin-10 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Ataxin-10 of human origin.

STORAGE

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

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-49376 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ataxin-10 (N-18) is recommended for detection of Ataxin-10 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).

Ataxin-10 (N-18) is also recommended for detection of Ataxin-10 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Ataxin-10 siRNA (h): sc-60218, Ataxin-10 siRNA (m): sc-60219, Ataxin-10 shRNA Plasmid (h): sc-60218-SH, Ataxin-10 shRNA Plasmid (m): sc-60219-SH, Ataxin-10 shRNA (h) Lentiviral Particles: sc-60218-V and Ataxin-10 shRNA (m) Lentiviral Particles: sc-60219-V.

Molecular Weight of Ataxin-10: 55 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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.

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.