

# Ataxin-10 (G-19): sc-49375

## 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  $\beta$ -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 spino-cerebellar 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

Ataxin-10 (G-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Ataxin-10 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-49375 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

Ataxin-10 (G-19) 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), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], 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 (G-19) is also recommended for detection of Ataxin-10 in additional species, including equine, canine and bovine.

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.

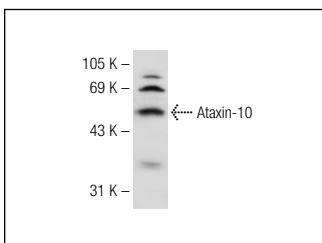
Molecular Weight of Ataxin-10: 55 kDa.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



Ataxin-10 (G-19): sc-49375. Western blot analysis of Ataxin-10 expression in HeLa whole cell lysate.

## RESEARCH USE

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

**MONOS**  
Satisfaction  
Guaranteed

Try **Ataxin-10 (C-3): sc-271233**, our highly recommended monoclonal alternative to Ataxin-10 (G-19).