

# Ataxin-10 (C-3): sc-271233

## 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 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

Ataxin-10 (C-3) is a mouse monoclonal antibody raised against amino acids 15-190 mapping near the N-terminus of Ataxin-10 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Ataxin-10 (C-3) is available conjugated to agarose (sc-271233 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271233 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271233 PE), fluorescein (sc-271233 FITC), Alexa Fluor<sup>®</sup> 488 (sc-271233 AF488), Alexa Fluor<sup>®</sup> 546 (sc-271233 AF546), Alexa Fluor<sup>®</sup> 594 (sc-271233 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-271233 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-271233 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-271233 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor<sup>®</sup> is a trademark of Molecular Probes, Inc., Oregon, USA

## 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 (C-3) is recommended for detection of Ataxin-10 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

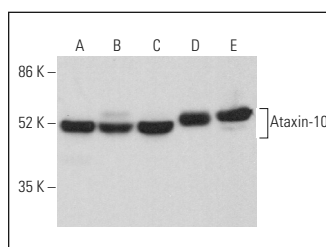
Molecular Weight of Ataxin-10: 55 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, PC-12 cell lysate: sc-2250 or HL-60 whole cell lysate: sc-2209.

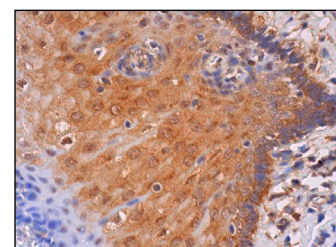
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 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 m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



Ataxin-10 (C-3): sc-271233. Western blot analysis of Ataxin-10 expression in HeLa (A), HL-60 (B), Raji (C), C3H/10T1/2 (D) and PC-12 (E) whole cell lysates.



Ataxin-10 (C-3): sc-271233. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic and nuclear staining of squamous epithelial cells.

## SELECT PRODUCT CITATIONS

1. Li, Y., et al. 2021. Ataxin-10 inhibits TNF- $\alpha$ -induced endothelial inflammation via suppressing interferon regulatory factor-1. *Mediators Inflamm.* 2021: 7042148.

## RESEARCH USE

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