

ARX (C-14): sc-48843

BACKGROUND

The aristaless-related homeobox (ARX) gene encodes a protein of 562 amino acids which contains 2 conserved domains, a C-peptide (or aristaless domain) and the prd-like class homeobox domain. ARX is a member of the group-II aristaless-related protein family and is expressed in fetal and adult brain and skeletal muscle. It may be involved in the differentiation and maintain the ARX gene are associated with various disorders, including X-linked mental retardation (XLMR), X-linked lissencephaly with abnormal genitalia (XLAG), X-linked infantile spasm syndrome (ISSX), X-linked myoclonic epilepsy with intellectual disability and spasticity (XMEDS), Partington syndrome (PRTS), non-specific X-linked mental retardation type 36 (MRX36) and non-specific X-linked mental retardation type 54 (MRX54).

REFERENCES

1. Strømme, P., et al. 2002. Mutations in the human ortholog of aristaless cause X-linked mental retardation and epilepsy. *Nat. Genet.* 30: 441-445.
2. Kitamura, K., et al. 2002. Mutation of ARX causes abnormal development of forebrain and testes in mice and X-linked lissencephaly with abnormal genitalia in humans. *Nat. Genet.* 32: 359-369.

CHROMOSOMAL LOCATION

Genetic locus: ARX (human) mapping to Xp21.3; Arx (mouse) mapping to X C3.

SOURCE

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

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-48843 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ARX (C-14) is recommended for detection of ARX 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).

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

Suitable for use as control antibody for ARX siRNA (h): sc-60204, ARX siRNA (m): sc-60205, ARX shRNA Plasmid (h): sc-60204-SH, ARX shRNA Plasmid (m): sc-60205-SH, ARX shRNA (h) Lentiviral Particles: sc-60204-V and ARX shRNA (m) Lentiviral Particles: sc-60205-V.

Molecular Weight of ARX: 58 kDa.

Positive Controls: SJRH30 cell lysate: sc-2287.

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.

SELECT PRODUCT CITATIONS

1. Fulp, C.T., et al. 2008. Identification of Arx transcriptional targets in the developing basal forebrain. *Hum. Mol. Genet.* 17: 3740-3760.
2. Quille, M.L., et al. 2011. High-throughput analysis of promoter occupancy reveals new targets for Arx, a gene mutated in mental retardation and interneuronopathies. *PLoS ONE* 6: e25181.
3. Nasrallah, M.P., et al. 2012. Differential effects of a polyaniline tract expansion in Arx on neural development and gene expression. *Hum. Mol. Genet.* 21: 1090-1098.

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.



Try **ARX (4A8): sc-293449**, our highly recommended monoclonal alternative to ARX (C-14).