SANTA CRUZ BIOTECHNOLOGY, INC.

ARX (N-15): sc-48845

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The aristaless-related homeobox (ARX) gene encodes a protein of 562 amino acids which contains two 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 main in 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.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 300382. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Yoshihara, S., et al. 2005. ARX homeobox gene is essential for development of mouse olfactory system. Development 132: 751-762.
5. Collombat, P., et al. 2005. The simultaneous loss of ARX and PAX4 genes promotes a somatostatin-producing cell fate specification at the expense of the α- and β-cell lineages in the mouse endocrine pancreas. Development 132: 2969-2980.
6. Kelly, L.E., et al. 2005. Recombineered *Xenopus tropicalis* BAC expresses a GFP reporter under the control of ARX transcriptional regulatory elements in transgenic *Xenopus laevis* embryos. Genesis 41: 185-191.
7. Poirier, K., et al. 2005. Maternal mosaicism for mutations in the ARX gene in a family with X-linked mental retardation. Hum. Genet. 118: 45-48.
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CHROMOSOMAL LOCATION

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

SOURCE

ARX (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of ARX 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-48845 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ARX (N-15) 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 (N-15) 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.

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.