

### **ARX Antibody (N-term)**

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP16723A

### **Specification**

## ARX Antibody (N-term) - Product Information

WB,E Application **Primary Accession** 096053 Other Accession NP 620689.1 Reactivity Human Host **Rabbit** Clonality **Polyclonal** Isotype Rabbit IgG Calculated MW 58160 Antigen Region 40-69

### ARX Antibody (N-term) - Additional Information

#### Gene ID 170302

#### **Other Names**

Homeobox protein ARX, Aristaless-related homeobox, ARX

#### Target/Specificity

This ARX antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 40-69 amino acids from the N-terminal region of human ARX.

#### **Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

#### **Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

#### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

### **Precautions**

ARX Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### **ARX Antibody (N-term) - Protein Information**

### **Name ARX**

Function Transcription factor (PubMed: 22194193, PubMed: 31691806). Binds to specific sequence



motif 5'-TAATTA-3' in regulatory elements of target genes, such as histone demethylase KDM5C (PubMed:<u>22194193</u>, PubMed:<u>31691806</u>). Positively modulates transcription of KDM5C (PubMed:<u>31691806</u>). Activates expression of KDM5C synergistically with histone lysine demethylase PHF8 and perhaps in competition with transcription regulator ZNF711; synergy may be related to enrichment of histone H3K4me3 in regulatory elements (PubMed:<u>31691806</u>). Required for normal brain development (PubMed:<u>11889467</u>, PubMed:<u>12379852</u>, PubMed:<u>14722918</u>). Plays a role in neuronal proliferation, interneuronal migration and differentiation in the embryonic forebrain (By similarity). May also be involved in axonal guidance in the floor plate (By similarity).

#### **Cellular Location**

Nucleus {ECO:0000255|PROSITE-ProRule:PRU00108, ECO:0000255|PROSITE-ProRule:PRU00138}

#### **Tissue Location**

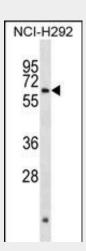
Expressed predominantly in fetal and adult brain and skeletal muscle. Expression is specific to the telencephalon and ventral thalamus. There is an absence of expression in the cerebellum throughout development and also in adult.

### **ARX Antibody (N-term) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

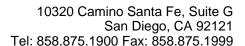
#### ARX Antibody (N-term) - Images



ARX Antibody (N-term) (Cat. #AP16723a) western blot analysis in NCI-H292 cell line lysates (35ug/lane). This demonstrates the ARX antibody detected the ARX protein (arrow).

### ARX Antibody (N-term) - Background

This gene is a homeobox-containing gene expressed during development. The expressed protein contains two conserved domains,





a C-peptide (or aristaless domain) and the prd-like class homeobox domain. It is a member of the group-II aristaless-related protein family whose members are expressed primarily in the central and/or peripheral nervous system. This gene is thought to be involved in CNS development. Mutations in this gene cause X-linked mental retardation and epilepsy.

# ARX Antibody (N-term) - References

Shoubridge, C., et al. Hum. Mutat. 31(8):889-900(2010) Fullston, T., et al. Eur. J. Hum. Genet. 18(2):157-162(2010) Nabbout, R., et al. Epilepsy Res. 87(1):25-30(2009) Kitamura, K., et al. Hum. Mol. Genet. 18(19):3708-3724(2009) Price, M.G., et al. J. Neurosci. 29(27):8752-8763(2009)