

**PHOX2A Polyclonal Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP54553****Specification****PHOX2A Polyclonal Antibody - Product Information**

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	<a href="#">O14813</a>
Reactivity	Rat, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	30 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human PHOX2A
Epitope Specificity	41-140/284
Isotype	IgG
<b>Purity</b>	
affinity purified by Protein A	
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus.
SIMILARITY	Belongs to the paired homeobox family. Contains 1 homeobox DNA-binding domain. Defects in PHOX2A are the cause of congenital fibrosis of extraocular muscles type 2 (CFEOM2) [MIM:602078]. CFEOM encompasses several different inherited strabismus syndromes characterized by congenital restrictive ophthalmoplegia affecting extraocular muscles innervated by the oculomotor and/or trochlear nerves. CFEOM is characterized clinically by anchoring of the eyes in downward gaze, ptosis, and backward tilt of the head. CFEOM2 may result from the aberrant development of the oculomotor (nIII), trochlear (nIV) and abducens (nVI) cranial nerve nuclei.
DISEASE	
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**Background Descriptions**

The protein encoded by this gene contains a paired-like homeodomain most similar to that of the *Drosophila aristaless* gene product. The encoded protein plays a central role in development of the autonomic nervous system. It regulates the expression of tyrosine hydroxylase and dopamine beta-hydroxylase, two catecholaminergic biosynthetic enzymes essential for the differentiation and maintenance of the noradrenergic neurotransmitter phenotype. The encoded protein has also been shown to regulate transcription of the alpha3 nicotinic acetylcholine receptor gene. Mutations in this gene have been associated with autosomal recessive congenital fibrosis of the

extraocular muscles. [provided by RefSeq, Jul 2008]

## PHOX2A Polyclonal Antibody - Additional Information

**Gene ID** 401

### Other Names

Paired mesoderm homeobox protein 2A, ARIX1 homeodomain protein, Aristaless homeobox protein homolog, Paired-like homeobox 2A, PHOX2A, ARIX, PMX2A

### Dilution

<span class="dilution\_WB">WB~~1:1000</span><br \><span class="dilution\_IHC-P">IHC-P~~N/A</span><br \><span class="dilution\_IHC-F">IHC-F~~N/A</span><br \><span class="dilution\_IF">IF~~1:50~200</span><br \><span class="dilution\_ICC">ICC~~N/A</span><br \><span class="dilution\_E">E~~N/A</span>

### Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

### Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

## PHOX2A Polyclonal Antibody - Protein Information

**Name** PHOX2A

**Synonyms** ARIX, PMX2A

### Function

May be involved in regulating the specificity of expression of the catecholamine biosynthetic genes. Acts as a transcription activator/factor. Could maintain the noradrenergic phenotype.

### Cellular Location

Nucleus {ECO:0000255|PROSITE-ProRule:PRU00108}.

## PHOX2A Polyclonal Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## PHOX2A Polyclonal Antibody - Images