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Datasheet for 600-401-DM4

# PHOX2A Antibody

## Overview

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| **Description:** | Anti-PHOX2A (RABBIT) Antibody - 600-401-DM4 |
| **Item No.:** | 600-401-DM4 |
| **Size:** | 100 µg |
| **Applications:** | ELISA, IF, IHC, WB |
| **Reactivity:** | Human, Mouse, Rat |
| **Host Species:** | Rabbit |

## Product Details

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| **Background:** | PHOX2A and PHOX2B (Paired mesoderm homeobox protein) are closely related, paired-homeodomain transcription factors that function as determinants of the noradrenergic phenotype during embryogenesis. PHOX2 proteins are crucial for the regulation of endogenous hydroxylases in neural crest cells and promote sympathetic neuron generation. Human PHOX2B contains one DNA binding homeobox domain and is required for the differentiation of all central and nonperipheral noradrenergic centers in the brain. In contrast, PHOX2A controls only the differentiation of the main noradrenergic center of the brain. Regulation of PHOX2 may have therapeutic utility in aging or disorders involving degeneration of noradrenergic neurons. |
| **Synonyms:** | PHOX2A Antibody, ARIX, FEOM2, NCAM2, PMX2A, CFEOM2, ARIX, Paired mesoderm homeobox protein 2A, ARIX1 homeodomain protein |
| **Host Species:** | Rabbit |
| **Clonality:** | Polyclonal |
| **Format:** | IgG |

## Target Details

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| **Gene Name:** | PHOX2A |
| **Reactivity:** | Human, Mouse, Rat |
| **Immunogen Type:** | Conjugated Peptide |
| **Immunogen:** | Anti-PHOX2A antibody was prepared from whole rabbit serum produced by repeated immunizations with a 16 amino acid synthetic peptide near the C-terminus of human PHOX2A. |

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| **Purity/Specificity:** | Anti-PHOX2A Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. PHOX2A antibody is predicted to not cross-react with other paired homeobox family members. |
| **Relevant Links:** | • UniProtKB - O14813<br>• GeneID - 401<br>• NCBI - NP_005160 |

## Application Details

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| **Tested Applications:** | ELISA, IF, IHC, WB |
| **Application Note:** | Anti-PHOX2A Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 29 kDa in Western Blots of specific cell lysates and tissues. |
| **Assay Dilutions:** | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below. |
| **ELISA:** | 1:10,000 |
| **IF:** | 2.5 µg/mL |
| **IHC:** | 2.5 µg/mL |
| **WB:** | 1 µg/mL |

## Formulation

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| **Physical State:** | Liquid (sterile filtered) |
| **Concentration:** | 1 mg/mL by UV absorbance at 280 nm |
| **Buffer:** | 0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2 |
| **Preservative:** | 0.02% (w/v) Sodium Azide |
| **Stabilizer:** | None |

## Shipping & Handling

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| **Shipping Condition:** | Dry Ice |

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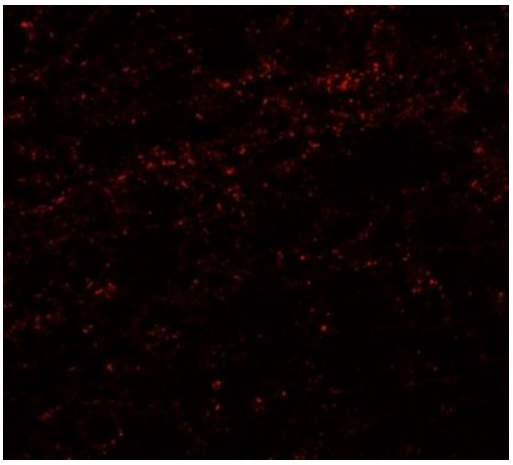
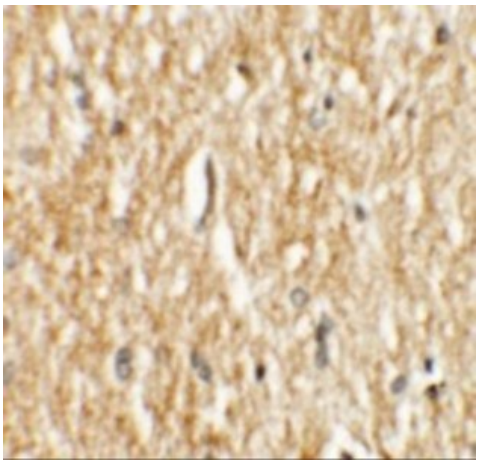
| **Storage Condition:** | Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use. |
| **Expiration:** | Expiration date is one (1) year from date of receipt. |

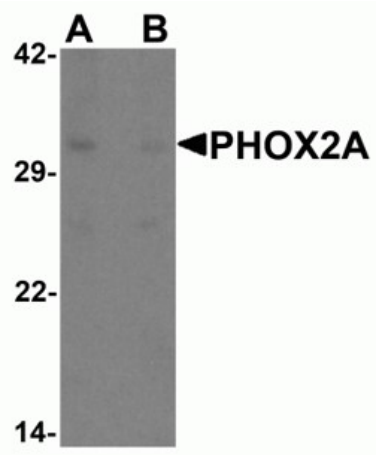
## Images



**Immunofluorescence Microscopy**
Immunofluorescence of PHOX2A.
Tissue: human brain tissue.
Primary Antibody: PHOX2A antibody at 20 µg/mL.



**Immunohistochemistry**
Immunohistochemistry of PHOX2A.
Tissue: human brain tissue.
Primary Antibody: PHOX2A antibody at 2.5 µg/mL.




**Western Blot**
Western blot analysis of PHOX2A.
Load: rat brain tissue lysate.
Primary Antibody: PHOX2A antibody at 1 µg/ml in (A) the absence and (B) the presence of blocking peptide.

## Disclaimer

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