

## Anti-PHOX2A Antibody

Catalog Number: A05780

### About PHOX2A

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.

### Overview

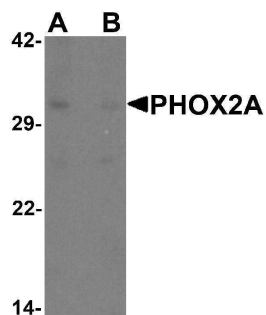
|                      |   |
|----------------------|---|
| Product Name         | Anti-PHOX2A Antibody  |
| Reactive Species     | Human, Mouse, Rat   |
| Description          | Boster Bio Anti-PHOX2A Antibody (Catalog # A05780). Tested in ELISA, WB, IHC-P, IF applications. This antibody reacts with Human, Mouse, Rat.   |
| Application          | ELISA, IF, IHC-P, WB  |
| Clonality            | Polyclonal  |
| Formulation          | PHOX2A Antibody is supplied in PBS containing 0.02% sodium azide.   |
| Storage Instructions | PHOX2A antibody can be stored at 4°C for three months and -20°C, stable for up to one year. Avoid repeated freeze-thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |
| Host                 | Rabbit  |
| Uniprot ID           | O14813  |

### Technical Details

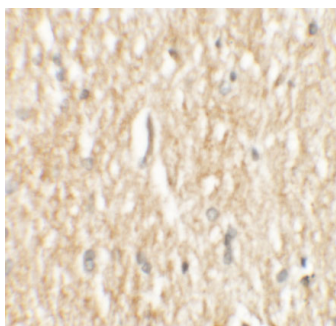
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|----------------------------|--|
| Immunogen                  | PHOX2A antibody was raised against a 16 amino acid synthetic peptide near the carboxy terminus of human PHOX2A. The immunogen is located within the last 50 amino acids of PHOX2A. |
| Predicted Reactive Species | Bovine   |
| Cross Reactivity           | PHOX2A antibody is predicted to not cross-react with other paired homeobox family members.   |
| Isotype                    | IgG  |
| Form                       | Liquid   |
| Concentration              | 1 mg/mL  |

|                     |   |
|---------------------|---|
| Purification        | PHOX2A Antibody is affinity chromatography purified via peptide column.   |
| Suggested Dilutions | PHOX2A antibody can be used for detection of PHOX2A by Western blot at 1 ug/mL. Antibody can also be used for immunohistochemistry starting at 2.5 ug/mL. For immunofluorescence start at 2.5 ug/mL.<br>Antibody validated: Western Blot in rat samples; Immunohistochemistry in human samples and Immunofluorescence in human samples. All other applications and species not yet tested. Optimal dilutions for each application should be determined by the researcher. |

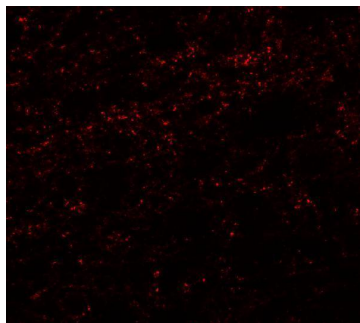
## Anti-PHOX2A Antibody (A05780) Images



Western blot analysis of PHOX2A in rat brain tissue lysate with PHOX2A antibody at 1 ug/ml in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of PHOX2A in human brain tissue with PHOX2A antibody at 2.5 ug/mL.



Immunofluorescence of PHOX2A in human brain tissue with PHOX2A antibody at 20 ug/mL.

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