

Product datasheet

Anti-PHOX2B antibody [EPR14423] - C-terminal ab183741

Recombinant RabMAb

★★★★★ [3 Abreviews](#) [11 References](#) [6 Images](#)

Overview

| | |
|----------------------------|--|
| Product name | Anti-PHOX2B antibody [EPR14423] - C-terminal |
| Description | Rabbit monoclonal [EPR14423] to PHOX2B - C-terminal |
| Host species | Rabbit |
| Specificity | The mouse recommendation is based on the WB results. We do not guarantee IHC-P for mouse. |
| Tested applications | Suitable for: WB, IHC-P, ICC/IF |
| Species reactivity | Reacts with: Mouse, Human |
| Immunogen | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. |
| Positive control | WB: Neuro-2a and SH-SY5Y cell lysate. IHC-P: Human neuroblastoma tissue. ICC/IF: HeLa, Neuro-2a and SH-SY5Y cells. |
| General notes | <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> |

Properties

| | |
|-----------------------------|---|
| Form | Liquid |
| Storage instructions | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. |
| Storage buffer | pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA |
| Purity | Protein A purified |
| Clonality | Monoclonal |

Clone number EPR14423

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab183741 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|-------------|-----------|--|
| WB | | 1/1000 - 1/2000. Detects a band of approximately 35 kDa (predicted molecular weight: 32 kDa). |
| IHC-P | ★★★★★ (2) | 1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. |
| ICC/IF | | 1/100. |

Target

Function Involved in the development of several major noradrenergic neuron populations, including the locus coeruleus. Transcription factor which could determine a neurotransmitter phenotype in vertebrates. Enhances second-messenger-mediated activation of the dopamine beta-hydroxylase and c-fos promoters, and of several enhancers including cAMP-response element and serum-response element.

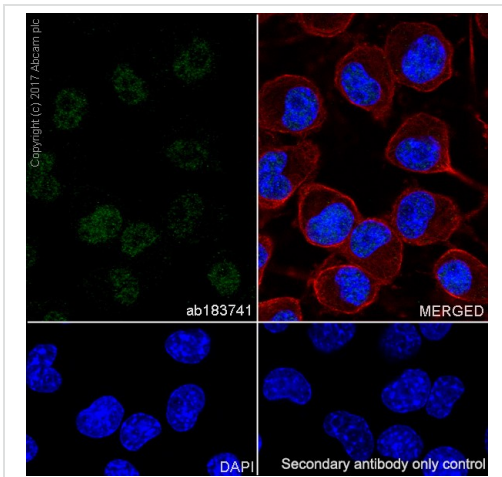
Tissue specificity Expressed in neuroblastoma, brain and adrenal gland.

Involvement in disease Defects in PHOX2B are a cause of congenital central hypoventilation syndrome (CCHS) [MIM:209880]; also known as congenital failure of autonomic control or Ondine curse. Most mutations consist of 5-10 alanine expansions in the poly-Ala region from amino acids 241-260. CCHS is a rare disorder characterized by abnormal control of respiration in the absence of neuromuscular or lung disease, or an identifiable brain stem lesion. A deficiency in autonomic control of respiration results in inadequate or negligible ventilatory and arousal responses to hypercapnia and hypoxemia. CCHS is frequently complicated with neurocristopathies such as Hirschsprung disease that occurs in about 16% of CCHS cases.
Defects in PHOX2B are the cause of susceptibility to neuroblastoma type 2 (NBLST2) [MIM:613013]. A common neoplasm of early childhood arising from embryonic cells that form the primitive neural crest and give rise to the adrenal medulla and the sympathetic nervous system.

Sequence similarities Belongs to the paired homeobox family.
Contains 1 homeobox DNA-binding domain.

Cellular localization Nucleus.

Images



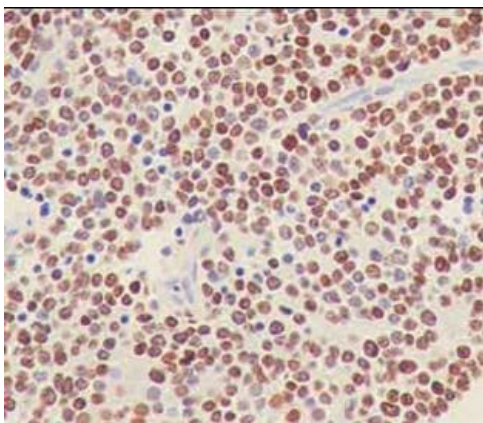
Immunocytochemistry/ Immunofluorescence - Anti-PHOX2B antibody [EPR14423] - C-terminal (ab183741)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized Neuro-2a (mouse neuroblastoma neuroblast) cell line labelling PHOX2B with ab183741 at 1/100 (10 µg/ml) dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green).

Confocal image showing nuclear staining in Neuro-2a cell line.

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue).

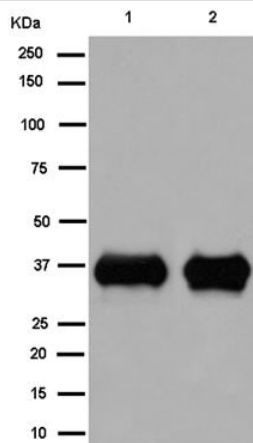
Secondary antibody only control: Secondary antibody is **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PHOX2B antibody [EPR14423] - C-terminal (ab183741)

Immunohistochemical analysis of paraffin-embedded Human neuroblastoma tissue labeling PHOX2B with ab183741 at 1/1000 dilution. The slide is counterstained with Hematoxylin.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Western blot - Anti-PHOX2B antibody [EPR14423] - C-terminal (ab183741)

All lanes : Anti-PHOX2B antibody [EPR14423] - C-terminal (ab183741) at 1/1000 dilution

Lane 1 : Neuro-2a cell lysate

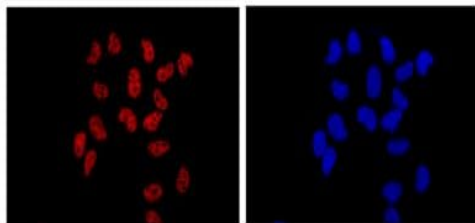
Lane 2 : SH-SY5Y cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

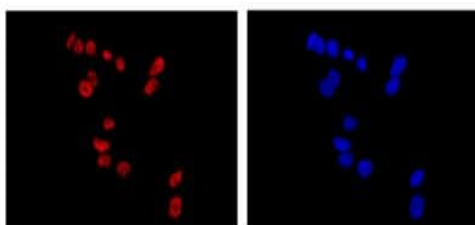
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 32 kDa



Immunocytochemistry/ Immunofluorescence - Anti-PHOX2B antibody [EPR14423] - C-terminal (ab183741)





Immunofluorescence analysis of acetone-fixed HeLa cells labeling PHOX2B with ab183741 at 1/100 dilution (red). Goat anti-rabbit IgG (Alexa Fluor® 555) at 1/200 dilution was used as the secondary antibody. The slide on the right is stained with Dapi (blue).



Immunocytochemistry/ Immunofluorescence - Anti-PHOX2B antibody [EPR14423] - C-terminal (ab183741)

Immunofluorescence analysis of 4% paraformaldehyde-fixed SH-SY5Y cells labeling PHOX2B with ab183741 at 1/100 dilution (red). Goat anti-rabbit IgG (Alexa Fluor® 555) at 1/200 dilution was used as the secondary antibody. The slide on the right is stained with Dapi (blue).

Why choose a recombinant antibody?

| | |
|---|---|
|  Research with confidence Consistent and reproducible results |  Long-term and scalable supply Recombinant technology |
|  Success from the first experiment Confirmed specificity |  Ethical standards compliant Animal-free production |

Anti-PHOX2B antibody [EPR14423] - C-terminal
(ab183741)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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