abcam

Product datasheet

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

Recombinant RabMAb

★★★★★ 1 Abreviews 3 References 4 Images

Overview

Product name	Anti-PHOX2B antibody [EPR14423] - C-terminal
Description	Rabbit monoclonal [EPR14423] to PHOX2B - C-terminal
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Synthetic peptide (the amino acid sequence is considered to be commercially sensitive) within Human PHOX2B aa 250 to the C-terminus. The exact sequence is proprietary. Database link: Q99453
Positive control	Neuro-2a and SH-SY5Y cell lysates; Human neuroblastoma tissue; HeLa and SH-SY5Y cells.
General notes	Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents This product is a recombinant rabbit monoclonal antibody.

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: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR14423
Isotype	IgG

Applications

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	★★★★★	1/1000.
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-hydrolase 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.

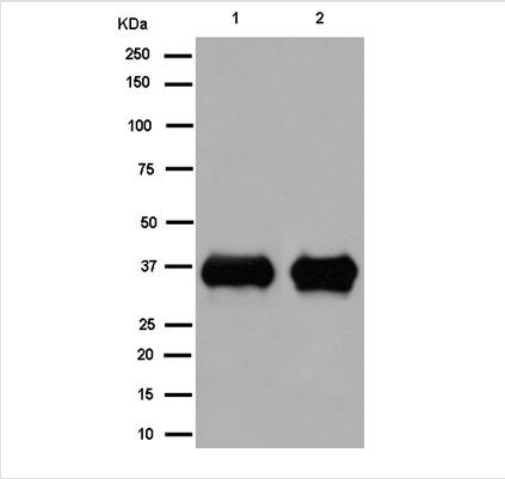
Sequence similarities

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

Cellular localization

Nucleus.

Images



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

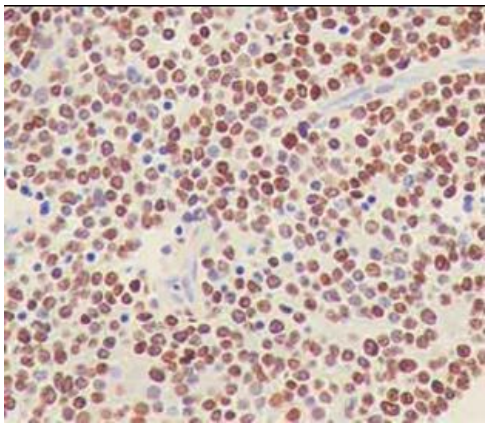
All lanes : Anti-PHOX2B antibody [EPR14423] - C-terminal (ab183741) at 1/1000 dilution

Lane 1 : Neuro-2a cell lysate
Lane 2 : SH-SY5Y cell lysate

Lysates/proteins at 20 µg per lane.

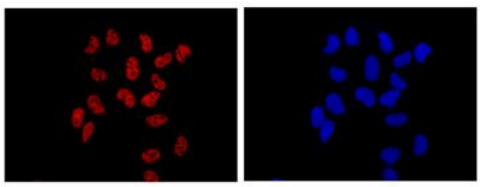
Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 32 kDa



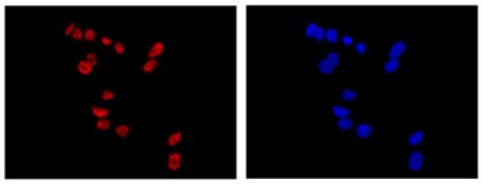
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PHOX2B antibody [EPR14423] - C-terminal (ab183741)

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



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).

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