

Rabbit Anti-PHOX2B [EP312]: RM0393, RM0393RTU7

Intended Use: For Research Use Only

Description: PHOX2B (Paired mesoderm homeobox protein 2B) is an essential transcription factor determinant of neuronal fate from neural crest precursors. Neural crest progenitors are a transient, migratory population of multipotent stem cells that develops into neurons of the sympathetic chain, neuroglia and chromaffin cells of the adrenal medulla during embryonic development. Mutations in PHOX2B have been associated with the development of disease such as congenital central hypoventilation syndrome, Hirschsprung disease and neuroblastoma. Neuroblastoma is the most common malignant pediatric extra-cranial tumor of the sympathetic nervous system. It is a heterogenous group of tumors histologically ranging from undifferentiated or poorly differentiated neuroblasts to predominantly full differentiated neurons. Compared to normal tissues, PHOX2B was found overexpressed in neuroblastoma and cell lines. Often in undifferentiated and poorly differentiated neuroblastomas, immunohistochemistry is required to confirm neuroblastic lineage. IHC studies have demonstrated PHOX2B expression in all neuroblastoma, and have suggested that PHOX2B is a potential marker for diagnosing undifferentiated neuroblastoma. Supplemental studies containing a panel of antibodies can differentiate neuroblastoma from other small-blue-round cell tumors such as Ewing's sarcoma and Wilms' tumor.

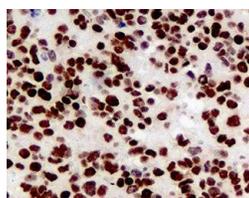
Specifications

Clone:	EP312
Source:	Rabbit
Isotype:	IgG
Reactivity:	Human
Localization:	Nucleus
Formulation:	Antibody in PBS pH7.5, containing < 0.2% BSA, 0.09% sodium azide (NaN3)
Storage:	Store at 2°- 8°C.
Applications:	IHC
Package:	

Description	Catalog No.	Size
PHOX2B Concentrated	RM0393	1 ml
PHOX2B Prediluted	RM0393RTU7	7 ml

IHC Procedure

Positive Control Tissue:	Neuroblastoma
Concentrated Dilution:	50-200
Pretreatment:	Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
Incubation Time and Temp:	30-60 minutes @ RT
Detection:	Refer to the detection system manual
* Result should be confirmed by an established diagnostic procedure.	



FFPE human neuroblastoma stained with anti-PHOX2B using DAB

References:

1. Diagnostic utility of PHOX2B in primary and treated neuroblastoma and in neuroblastoma metastatic to the bone marrow. Hata JL, et al. Arch Pathol Lab Med. Apr;139(4):543-6, 2015.
2. PHOX2B immunolabeling: a novel tool for the diagnosis of undifferentiated neuroblastomas among childhood small round blue-cell tumors. Bielle F, et al. Am J Surg Pathol. Aug;36(8):1141-9, 2012.