

PHOX2A Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant PHOX2A.

Catalog # AT3303a

Product Information

Application	WB, IF
Primary Accession	O14813
Other Accession	NM_005169
Reactivity	Human, Rat
Host	mouse
Clonality	monoclonal
Isotype	IgG2a Kappa
Clone Names	4F6
Calculated MW	29653

Additional Information

Gene ID	401
Other Names	Paired mesoderm homeobox protein 2A, ARIX1 homeodomain protein, Aristaless homeobox protein homolog, Paired-like homeobox 2A, PHOX2A, ARIX, PMX2A
Target/Specificity	PHOX2A (NP_005160, 1 a.a. ~ 90 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 IF~~1:50~200
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	PHOX2A Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

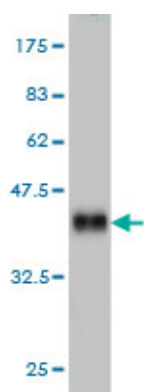
Background

The protein encoded by this gene contains a paired-like homeodomain most similar to that of the *Drosophila aristaless* gene product. The encoded protein plays a central role in development of the autonomic nervous system. It regulates the expression of tyrosine hydroxylase and dopamine beta-hydroxylase, two catecholaminergic biosynthetic enzymes essential for the differentiation and maintenance of the noradrenergic neurotransmitter phenotype. The encoded protein has also been shown to regulate transcription of the alpha3 nicotinic acetylcholine receptor gene. Mutations in this gene have been associated with autosomal recessive congenital fibrosis of the extraocular muscles.

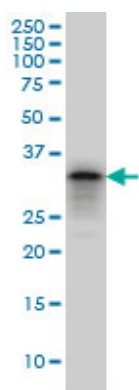
References

Mutations in KIF21A and PHOX2A are absent in 16 patients with congenital vertical incomitant strabismus. Khan AO, et al. Ophthalmic Genet, 2009 Dec. PMID 19852579. Effects of transcription factors Phox2 on expression of norepinephrine transporter and dopamine beta-hydroxylase in SK-N-BE(2)C cells. Fan Y, et al. J Neurochem, 2009 Sep. PMID 19573018. The Phox2 pathway is differentially expressed in neuroblastoma tumors, but no mutations were found in the candidate tumor suppressor gene PHOX2A. Wilz?n A, et al. Int J Oncol, 2009 Mar. PMID 19212675. PHOX2A and PHOX2B genes are highly co-expressed in human neuroblastoma. Longo L, et al. Int J Oncol, 2008 Nov. PMID 18949361. Clinical features, ARIX and PHOX2B nucleotide changes in three families with congenital superior oblique muscle palsy. Imai S, et al. Acta Med Okayama, 2008 Feb. PMID 18323871.

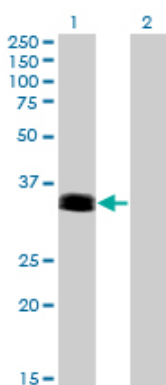
Images



Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (35.64 KDa) .



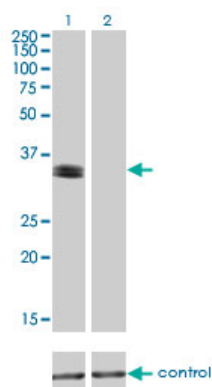
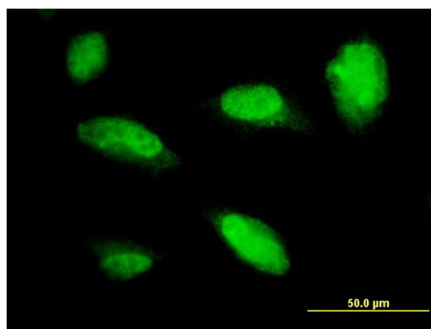
PHOX2A monoclonal antibody (M01), clone 4F6 Western Blot analysis of PHOX2A expression in PC-12 ((Cat # AT3303a)



Western Blot analysis of PHOX2A expression in transfected 293T cell line by PHOX2A monoclonal antibody (M01), clone 4F6.

Lane 1: PHOX2A transfected lysate(29.7 KDa).
Lane 2: Non-transfected lysate.

Immunofluorescence of monoclonal antibody to PHOX2A on HeLa cell. [antibody concentration 10 ug/ml]



Western blot analysis of PHOX2A over-expressed 293 cell line, cotransfected with PHOX2A Validated Chimera RNAi (Cat # AT3303a)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.