

Product datasheet for **RC208331**

PHOX2A (NM_005169) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PHOX2A (NM_005169) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PHOX2A
Synonyms:	ARIX; CFEOM2; FEOM2; NCAM2; PMX2A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC208331 representing NM_005169 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACTACTCCTACCTCAATTCGTACGACTCGTGCCTGGCGGCCATGGAGGCGTCCGCCTACGGCGACT
TTGGCGCCTGCAGCCAGCCCGCGGCTTCCAATACAGCCCTCGCGCCGCTTTCCCGCGGCAGGGCC
GCCCTGCCCGCGCTCGGCTCCTCAACTGCGCACTTGGCGCCCTACGCGACCACCAGCCCGCGCCATC
TCGGCAGTGCCCTACAAGTTCTCCAGAGCCATCCGGCCTGCACGAGAAGCGCAAGCAGCGCGCATCC
GCACCAGTTCACCAGCGCGCAGCTCAAGGAGCTGGAGCGGTTTTCGCTGAGACCCACTACCCCGACAT
TTACACGCGTGAGGAGCTGGCGCTCAAGATCGACCTCACTGAGGCTCGCGTGCAGGTCTGGTTCCAGAAC
CGCCGGGCCAAGTTCGCAAAACAGGAGCGCGGCCAGCGCCAAGGGCGCGGGCGGGCGGGGCCA
AAAAGGGCGAGGCGCGCTGCTCCTCCGAGGACGACGATTCCAAGGAGTCCACGTGCAGCCCCACGCCGA
TAGCACCGCTCGCTGCCCGCCGCTGCGCCCGGCTGGCCAGCCCGCGCTGAGCCCCAGCCCGCTG
CCCGTGCAGTGGGCTCCGGGCGGGACCTGGGCCGGGGCCACAGCCGCTCAAGGGCGCACTGTGGGCCG
GTGTGGCGGGCGGTGGGGCGGGGCTGGCGGGGAGCGCCGAACACTTAAGGCTTGGCAGCCGGC
GGAGTCCGGCCCCGGGCCCTTCCGGGGTTCTGTCTCTTTACCCGGAAGCCCCGGCCCCGCTGAAG
ACCAATCTCTTC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC208331 representing NM_005169
Red=Cloning site Green=Tags(s)

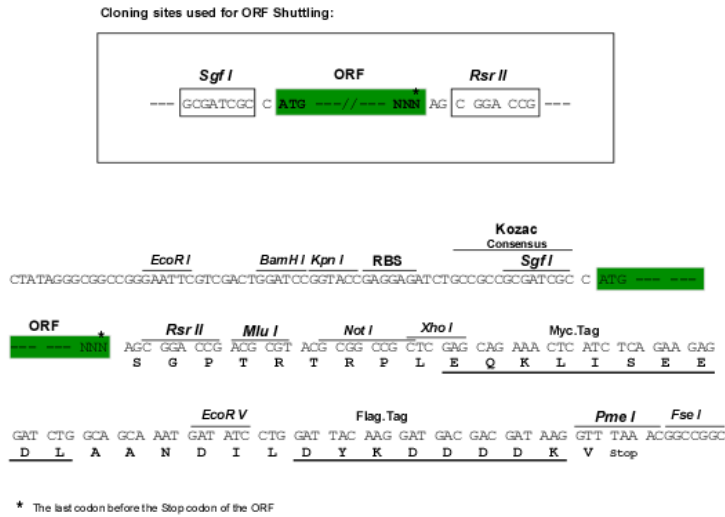
MDYSYLNYSYDSCVAAMEASAYGDFGACSQPGGFQYSPLRPAFPAAGPPCPALGSSNCALGALRDHQAPY
 SAVPYKFFPEPSGLHEKRKQRRIRTTFTSAQLKELERVFAETHYPDIYTREELALKIDL TEARVQVWFQN
 RRAKFRKQERAASAKGAAGAAGAKKGEARCSSEDDDSKESTCSPTPDSTASLPPPPAPGLASPRLSPSPL
 PVALGSGPGPGPGPQLK GALWAGVAGGGGGPGAGAAELLKAWQPAESGPGPFSVLSFFHRKPGPALK
 TNLF

SGPTRTRRLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8113_g01.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_005169

ORF Size: 852 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_005169.4](#)

RefSeq Size: 1716 bp

RefSeq ORF: 855 bp

Locus ID: 401

UniProt ID: [O14813](#)

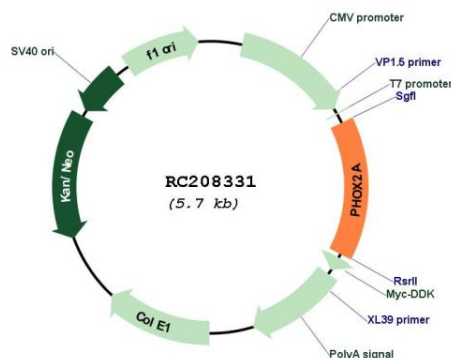
Cytogenetics: 11q13.4

Protein Families: Transcription Factors

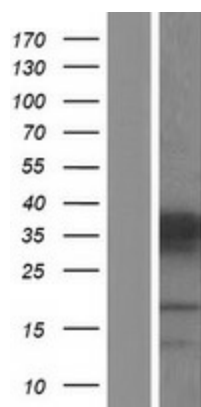
MW: 29.7 kDa

Gene Summary: 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. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC208331



Western blot validation of overexpression lysate (Cat# [LY417472]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208331 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).