

Product datasheet for **SC303401**

PHOX2B (NM_003924) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PHOX2B (NM_003924) Human Untagged Clone
Tag:	Tag Free
Symbol:	PHOX2B
Synonyms:	CCHS; NBLST2; NBPhox; PMX2B
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC303401 sequence for NM_003924 edited (data generated by NextGen Sequencing)

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ATGTATAAAATGGAATATTCTTACCTCAATTCCTCTGCCTACGAGTCCTGTATGGCTGGGATGGACACCT
CGAGCCTGGCTTCAGCCTATGCTGACTTCAGTTCCTGCAGCCAGGCCAGTGGCTTCCAGTATAACCCGAT
AAGGACCACTTTTGGGGCCACGTCCGGCTGCCCTCCCTCACGCCGGATCCTGCAGCCTGGGCACCCTC
AGGGACCACCAGAGCAGTCCGTACGCCGAGTTCCTTACAACTTTCACGGACCACGGCGGCTCAACG
AGAAGCGCAAGCAGCGGCGCATCCGACCACTTTCACAGTGCAGCTCAAAGAGCTGAAAGGGTCTT
CGCGGAGACTCACTACCCGACATCTACTCGGGAGGAGCTGGCCCTGAAGATCGACCTCACAGAGGCG
CGAGTCCAGGTGTGGTTCAGAACC GCCGCAAGTTTCGCAAGCAGGAGCGCGCAGCGGCAGCCGCAG
CGGCCGCGGCCAAGAACGGCTCCTCGGGCAAAAAGTCTGACTCTTCCAGGGACGACGAGAGCAAAGAGGC
CAAGAGCACTGACCCGGACAGCACTGGGGGCCAGGTCCCAATCCCAACCCACCCACAGCTGCGGGGCG
AATGGAGGCGGCGGCGGGGCCAGCCGGCTGGAGCTCCGGGGGCGGCGGGGCCCGGGGGCCGGGGAG
GCGAACCCGGCAAGGGCGGCGCAGCAGCAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCG
GGCGGCGAGCTGGAGGCTGGCTGCGGCTGGGGGCCCTGGACAAGGCTGGGCTCCCGGCCCGGCCCATC
ACCTCCATCCCGATTGCTTGGGGTCCCTTCGCCAGCGTCTATCTTCGCTCCAAAGACCCAACGGTG
CCAAAGCCGCTTAGTGAAGAGCAGTATGTTCTGA
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Clone variation with respect to NM_003924.3



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5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_003924 unedited NCCCCTGCGGGATTTGTAAACGACTTATATAGGCGGCACGCGAATTCGCACGAGGCGTTG AGCTGTGCACATCTCCCCACTCCAGCCACCTTCTCCATATCCATCTTTTATTTTCAATTTT CCACTTGGCTGAGCCATCCAGAACCTTTTCAATGTATAAAATGGAATATTCTTACCTCAA TTCTCTGCCTACGAGTCTGTATGGCTGGGATGGACACCTCGAGCCTGGCTTCAGCCTA TGCTGACTTCAGTTCCTGCAGCCAGGCCAGTGGCTTCCAGTATAACCCGATAAGGACCAC TTTTGGGGCCACGTCCGGCTGCCCTTCCCTCACGCCGGGATCCTGCAGCCTGGGCACCCT CAGGGACCACCAGAGCAGTCCGTACGCCGAGTTCCTTACAAACTCTTACGGACCACGG CGGCCTCAACGAGAAGCGCAAGCAGCGGCGCATCCGCACCACTTTACCAGTGCCAGCT CAAAGAGCTGAAAGGGTCTTCGCGGAGACTCACTACCCCGACATCTACACTCGGGAGGA GCTGGCCCTGAAGATCGACCTCACAGAGGCGGAGTCCAGGTGTGGTTCCAGAACCGCCG CGCAAGTTTCGCAAGCAGGAGCGCGCAGCGGCAGCCGAGCGCCGCGGCAAGAACGG CTCTCGGGCAAAAAGTCTGACTCTTCCAGGGACGACGAGAGCAAAGAGGCCAAGAGCAC TGACCCGGACAGCACTGGGGGCCAGGTCCAATCCCAACCCACCCCACTGCGGTGC CAATGGGAGCGGGCGGGCCAGCCCGGCTGGAGTCCNGGGGCGGGGGCCCCG GGCCCCGGGAGGCGAACCCGGCATGGCGGCGCATCATCAACGGCGGGCGGCGCTGTCATC GTCGGCGGGGA</p>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_003924 unedited TTTTTTTTTTTTTTCTAAACAAGTCACTAAGTTGGTTGAGGCCCCCATCTCTTCTGT CACCTGCTTGGGCCACAGACACACATTCCTCCGAGACAGACAAAAGTACACGCAGACAC AGCCCCCTGAGAGTGCCCGTGTCCAGGCCGCTGCTACAACCCCGATCAGCAGGCG GAGCCGTGGCCCCGCTCCCCCCCCAGGCAGGTGCGAAGCCAGGGAAGTTTGTTTGTTT TGTTTGGGGTTGAGAAAGGGTAGGAGTGG</p>
Restriction Sites:	Please inquire
ACCN:	NM_003924
Insert Size:	1500 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_003924.2](#), [NP_003915.2](#)

RefSeq Size: 3033 bp

RefSeq ORF: 945 bp

Locus ID: 8929

UniProt ID: [Q99453](#)

Cytogenetics: 4p13

Gene Summary: The DNA-associated protein encoded by this gene is a member of the paired family of homeobox proteins localized to the nucleus. The protein functions as a transcription factor involved in the development of several major noradrenergic neuron populations and the determination of neurotransmitter phenotype. The gene product is linked to enhancement of second messenger-mediated activation of the dopamine beta-hydroxylase, c-fos promoters and several enhancers, including cyclic amp-response element and serum-response element. Expansion of a 20 amino acid polyalanine tract in this protein by 5-13 aa has been associated with congenital central hypoventilation syndrome. [provided by RefSeq, Jul 2016]