OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC111620

Doublecortin (DCX) (NM_000555) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Doublecortin (DCX) (NM_000555) Human Untagged Clone
Tag:	Tag Free
Symbol:	Doublecortin
Synonyms:	DBCN; DC; LISX; SCLH; XLIS
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_000555, the custom clone sequence may differ by one or more nucleotides

ATGAAAACACTCCCCCTTCATAGTCATTGTACTGAAATGCAAAGACTGCTTCCTAAGCTGGAGATGCTAA
CCTTGGGTAGCTCCTTCTGTTCTCTTCAAGGGGAATTTTGTCAGGCTATGGATTCATTTACAACTGTTAG
TCATGTGGGCATGTGTGAGGAAACAGATGCCAGTTTTAATGTATTTAGCCCGAAGTTCCAATTTGATAGG
AGCCACTGTCAGTCTCTGAGGTTCCACCAAAATATGGAACTTGATTTTGGACACTTTGACGAAAGAGATA
AGACATCCAGGAACATGCGAGGCTCCCGGATGAATGGGTTGCCTAGCCCCACTCACAGCGCCCACTGTAG
CTTCTACCGAACCAGAACCTTGCAGGCACTGAGTAATGAGAAGAAAGCCAAGAAGGTACGTTTCTACCGC
AATGGGGACCGCTACTTCAAGGGGATTGTGTACGCTGTGTCCTCTGACCGTTTTCGCAGCTTTGACGCCT
TGCTGGCTGACCTGACGCGATCTCTGTCTGACAACATCAACCTGCCTCAGGGAGTGCGTTACATTTACAC
CATTGATGGATCCAGGAAGATCGGAAGCATGGATGAACTGGAGGAAGGGGAAAGCTATGTCTGTTCCTCA
GACAACTTCTTTAAAAAGGTGGAGTACACCAAGAATGTCAATCCCAACTGGTCTGTCAACGTAAAAACAT
CTGCCAATATGAAAGCCCCCCAGTCCTTGGCTAGCAGCAACAGTGCACAGGCCAGGGAGAACAAGGACTT
TGTGCGCCCCAAGCTGGTTACCATCATCCGCAGTGGGGTGAAGCCTCGGAAGGCTGTGCGTGTGCTTCTG
AACAAGAAGACAGCCCACTCTTTTGAGCAAGTCCTCACTGATATCACAGAAGCCATCAAACTGGAGACCG
GGGTTGTCAAAAAACTCTACACTCTGGATGGAAAACAGGTAACTTGTCTCCATGATTTCTTTGGTGATGA
TGATGTGTTTATTGCCTGTGGTCCTGAAAAATTTCGCTATGCTCAGGATGATTTTTCTCTGGATGAAAAT
GAATGCCGAGTCATGAAGGGAAACCCATCAGCCACAGCTGGCCCAAAGGCATCCCCAACACCTCAGAAGA
CTTCAGCCAAGAGCCCTGGTCCTATGCGCCGAAGCAAGTCTCCAGCTGACTCAGCAAACGGAACCTCCAG
CAGCCAGCTCTCTACCCCCAAGTCTAAGCAGTCTCCCATCTCTACGCCCACCAGTCCTGGCAGCCTCCGG
AAGCACAAGGACCTGTACCTGCCTCTGTCCTTGGATGACTCGGACTCGCTTGGTGATTCCATGTAA

View online »

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000555 unedited
TTTTGTATACGACTCATATAGGCGGCNCGCGATTCGGCACGAGGGGCAAAGCCTGCTCTC
TCTGTCTCTCTGTCTCCTCTTCTCCTTTTTTGCCTTATTCTATCCGATTTTTTCCCTAAG
CTTCTACCTGGGATTTTCCTTTGGAAAAGTCTCTGAGGTTCCACCAAAATATGGAACTTG
ATTTTGGACACTTTGACGAAAGAGATAAGACATCCAGGAACATGCGAGGCTCCCGGATGA
ATGGGTTGCCTAGCCCCACTCACAGCGCCCACTGTAGCTTCTACCGAACCAGAACCTTGC
AGGCACTGAGTAATGAGAAGAAAGCCAAGAAGGTACGTTTCTACCGCAATGGGGACCGCT
ACTTCAAGGGGATTGTGTACGCTGTGTCCTCTGACCGTTTTCGCAGCTTTGACGCCTTGC
TGGCTGACCTGACGCGATCTCTGTCTGACAACATCAACCTGCCTCAGGGAGTGCGTTACA
TTTACACCATTGATGGATCCAGGAAGATCGGAACATGGATGAACTGGAGAAGGGAAAGCT
TTGTCTGTTCCTCAGACAACTTCTTTAAAGGGTGGAGTACACCAAGAATGTAATCCCACT
GGGTCTGTCAACGTAAAAACATCTGCCATATGAAAGCCCCCCAGTCCTTGGCTAGCAGCA
ACAGTGCACAGGCCAGGGAGACNAGGNACTTTGTGCGCCCAAGCTGGTTACATATNCGAA
NGGGGNGTGAGCCTCGAAAGTTTGNGCGTGTGCTTCTGACAAGAAACAGCCACTCTTTGG
AGCAGTNCTACTGATTCACAGAGCATAACTGGACAGCGGGGGGGGTGCAAAAACTTACAT
TCTGATGGAAACAGGTAACTGCTCTGATTTTA

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000555 unedited
CTATGGACCGGGCGGCCGCATTCTAGNAGTCGAGTTTTTTTTTTTTTTTTTGGTAAATT
TTCTTCATGTGTTTTTTAGACAAAAGAAAAACACCAGTTTATAAAAAAAGGAGCCTGAAG
AGTTTGCTCCTGAAATACAGACATGAATTTTTATAAAAAGGATATTGATTTCTTGCTATA
AAAAGAGACTGAAAGGTGTCAGACCTGAAAACAAATTCTCACAGTGTTTTCAGTGTTGGC
TGTTAACAAGGCATTCAATAGAACAGAGATAGATGGATACCATACAGTTCATGTAATCAT
GTGGTATGCTAGACAGCCTTCTAGAGGAATCAGGTATATGAAGCCCCTTACTCCAAACTA
TTATCAATTGCTCATTGATTCCAAATCGCCTCAGTGGAGAGATCGACCAGCACTTCACTG
CGCTCTCCAAACTCTTCCCACCGTCCGCAGCCTTTCCCAATTCTGCCCCACTCCCTTATT
TAACCCACCCCCCTTATCCCCCCCCTCTTGCCCTCCCCTCACTACTTCCCCCCCCCCCCT
CCTCCCCTTCCCCCCCAAACCCGTTCTCGCCTCCCTCCCCCCTTCCCCCCCCCCCCCCCA
CCCCCCCCCCCCCCCCTTTCCCTCTTTCTCTTTCACGTTTTTCCCCCCTCCCTCTCCCCCC
CCCTCTCTCTCCCCTCCCTCCCTCCCCTTTTCCCCCCCCCCACCCCGCCCCCCTCCCCCC
CCCCCCCCTTGCCTCCCCCCCCCCCCCCCCCCCTGTCCCGCCCCCCCCCCCTTTCTTCCCC
TCCCTTCCCTCTTCTCCCCTCTCTTTCCCCCCCCCTTCCCCCGCTTGTGGCGCCCCCCCC
CCNNNNNCCCCCCCCCNCCNNNCCNNCCCCCNNNNCCCCCCCCCCCCCCCCNCCNCNCC
CCCCCCCCNCCCCCCCNNCCCCCCCCCCNCCCCCNCNNCCCCCCNCCNCCNCNNNNNNN
CCCCCCCCCCCCNGG

Restriction Sites: NotI-NotI

ACCN: NM_000555

Insert Size: 2150 bp

OTI Disclaimer:	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. 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
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_000555.1, NP_000546.1
RefSeq Size:	9433 bp
RefSeq ORF:	1083 bp
Locus ID:	1641
UniProt ID:	O43602
Cytogenetics:	Xq23
Domains:	DCX
Protein Families:	Druggable Genome

Gene Summary: This gene encodes a member of the doublecortin family. The protein encoded by this gene is a cytoplasmic protein and contains two doublecortin domains, which bind microtubules. In the developing cortex, cortical neurons must migrate over long distances to reach the site of their final differentiation. The encoded protein appears to direct neuronal migration by regulating the organization and stability of microtubules. In addition, the encoded protein interacts with LIS1, the regulatory gamma subunit of platelet activating factor acetylhydrolase, and this interaction is important to proper microtubule function in the developing cortex. Mutations in this gene cause abnormal migration of neurons during development and disrupt the layering of the cortex, leading to epilepsy, cognitive disability, subcortical band heterotopia ("double cortex" syndrome) in females and lissencephaly ("smooth brain" syndrome) in males. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2010]
Transcript Variant: This variant (1) encodes the longest isoform (a). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.