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 SC310499

Doublecortin (DCX) (NM_178151) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Doublecortin (DCX) (NM_178151) Human Untagged Clone
Tag:	Tag Free
Symbol:	Doublecortin
Synonyms:	DBCN; DC; LISX; SCLH; XLIS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC310499 representing NM_178151. Blue=Insert sequence Red=Cloning site Green=Tag(s) GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC ATGGAACTTGATTTTGGACACTTTGACGAAAGAGATAAGACATCCAGGAACATGCGAGGCTCCCGGATG AATGGGTTGCCTAGCCCCACTCACAGCGCCCACTGTAGCTTCTACCGAACCAGAACCTTGCAGGCACTG AGTAATGAGAAGAAAGCCAAGAAGGTACGTTTCTACCGCAATGGGGACCGCTACTTCAAGGGGATTGTG TACGCTGTGTCCTCTGACCGTTTTCGCAGCTTTGACGCCTTGCTGGCTGACCTGACGCGATCTCTGTCT GACAACATCAACCTGCCTCAGGGAGTGCGTTACATTTACACCATTGATGGATCCAGGAAGATCGGAAGC ATGGATGAACTGGAGGAAGGGGAAAGCTATGTCTGTTCCTCAGACAACTTCTTTAAAAAGGTGGAGTAC ACCAAGAATGTCAATCCCAACTGGTCTGTCAACGTAAAAACATCTGCCAATATGAAAGCCCCCCAGTCC TTGGCTAGCAGCAACAGTGCACAGGCCAGGGAGAACAAGGACTTTGTGCGCCCCAAGCTGGTTACCATC ATCCGCAGTGGGGTGAAGCCTCGGAAGGCTGTGCGTGTGCTTCTGAACAAGAAGACAGCCCACTCTTTT GAGCAAGTCCTCACTGATATCACAGAAGCCATCAAACTGGAGACCGGGGTTGTCAAAAAACTCTACACT CTGGATGGAAAACAGGTAACTTGTCTCCATGATTTCTTTGGTGATGATGATGTGTTTATTGCCTGTGGT CCTGAAAAATTTCGCTATGCTCAGGATGATTTTTCTCTGGATGAAAATGAATGCCGAGTCATGAAGGGA AACCCATCAGCCACAGCTGGCCCAAAGGCATCCCCAACACCTCAGAAGACTTCAGCCAAGAGCCCTGGT CCTATGCGCCGAAGCAAGTCTCCAGCTGACTCAGCAAACGGAACCTCCAGCAGCCAGCTCTCTACCCCC AAGTCTAAGCAGTCTCCCATCTCTACGCCCACCAGTCCTGGCAGCCTCCGGAAGCACAAGGACCTGTAC CTGCCTCTGTCCTTGGATGACTCGGACTCGCTTGGTGATTCCATGTAA ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
Restriction Sites:	SgfI-MluI
ACCN:	NM_178151

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Insert Size:	1083 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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_178151.2
RefSeq Size:	9262 bp
RefSeq ORF:	1083 bp
Locus ID:	1641
UniProt ID:	O43602
Cytogenetics:	Xq23
Protein Families:	Druggable Genome
MW:	40 kDa

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 (4) has an alternate 5' exon, resulting in a downstream AUG start codon, as compared to variant 1. The resulting isoform (c) has a shorter N-terminus compared to isoform a. Variants 3 and 4 encode the same isoform. 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.