

## Product datasheet for RC216349L1

#### 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

## Doublecortin (DCX) (NM\_178151) Human Tagged Lenti ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

Product Name: Doublecortin (DCX) (NM\_178151) Human Tagged Lenti ORF Clone

Tag: Myc-DDK

Symbol: Doublecortin

Synonyms: DBCN; DC; LISX; SCLH; XLIS

Mammalian Cell None

Selection:

Vector:pLenti-C-Myc-DDK (PS100064)E. coli Selection:Chloramphenicol (34 ug/mL)

ORF Nucleotide The ORF insert of this clone is exactly the same as(RC216349).

Sequence:

Restriction Sites: Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_178151

ORF Size: 1080 bp





### Doublecortin (DCX) (NM\_178151) Human Tagged Lenti ORF Clone - RC216349L1

**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: <u>NM 178151.1</u>, <u>NP 835364.1</u>

 RefSeq Size:
 9262 bp

 RefSeq ORF:
 1083 bp

 Locus ID:
 1641

UniProt ID: <u>O43602</u> 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

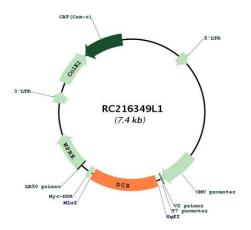
the layering of the cortex, leading to epilepsy, cognitive disability, subcortical band heterotopia ("double cortex" syndrome) in females and lissencephaly ("smooth brain"

syndrome) in males. Multiple transcript variants encoding different isoforms have been found

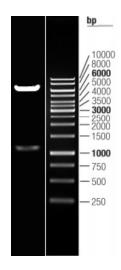
for this gene. [provided by RefSeq, Sep 2010]



# **Product images:**



Circular map for RC216349L1



Double digestion of RC216349L1 using Sgfl and Mlul