

# Recombinant Human DCX Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. DCX-5885H Lot. No. (See product label)

## SPECIFICATION

### Product Overview

DCX MS Standard C13 and N15-labeled recombinant protein (NP\_835365) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.

### Species

Human

### Source

HEK293

### Description

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.

### Molecular Mass

40.4 kDa

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**AA Sequence**

MELDFGHFDERDKTSRNMGRSRMNGLPSPTHSAHCSFYRTRTLQALSNEKKAKKV  
 RFYRNGDRYFKGIVYAVSSDRFRSFDALLADLTRSLSDNINLPQGVRYIYTIDGSRKI  
 GSMDELEEGESYVCSSDNFFKKVEYTKNVNPNWSVNVKTSANMKAPQSLASSNSA  
 QARENKDFVRPKLVTIIRSGVKPRKAVRVLLNKKTAHSFEQVLTDATEAIKLETGVVKK  
 LYTLDGKQVTCLHDFFGDDVFIACGPEKFRYAQDDFSLDENECRVMKGNPSATAG  
 PKASPTPQKTSAKSPGPMRRSKSPADSGNDQDANGTSSSQLSTPKSKQSPISTPTS  
 PGSLRKHKDLYLPLSLDDSDSLGDSMTRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Purity** > 80% as determined by SDS-PAGE and Coomassie blue staining

**Stability** Stable for 3 months from receipt of products under proper storage and handling conditions.

**Storage** Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

**Concentration** 50 µg/mL as determined by BCA

**Storage Buffer** 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

## GENE INFORMATION

**Gene Name** [DCX doublecortin \[ Homo sapiens \(human\) \]](#)

**Official Symbol** [DCX](#)

**Synonyms** DCX; doublecortin; doublecortex; lissencephaly, X linked (doublecortin); neuronal migration protein doublecortin; DBCN; DC; doublecortex; LISX; SCLH; XLIS; lis-X; doublin; lissencephalin-X; FLJ51296;

**Gene ID** [1641](#)

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mRNA Refseq [NM\\_178152](#)

Protein Refseq [NP\\_835365](#)

MIM [300121](#)

UniProt ID [O43602](#)

SDS-PAGE



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