

Doublecortin (C-18): sc-8066

BACKGROUND

Lissencephaly (smooth brain) is an abnormality of brain development characterized by incomplete neuronal migration and a smooth cerebral surface, resulting in severe mental retardation. Genetic analysis identified two proteins that are mutated in some cases of lissencephaly, designated lissencephaly-1 protein (LIS1) and Doublecortin. LIS1 shows sequence homology to β -subunits of heterotrimeric G proteins. Doublecortin contains a consensus Abl phosphorylation site, and it has some sequence homology to a predicted kinase protein. Both proteins are highly expressed in developing brain, suggesting that they may be involved in a signal transduction pathway that is crucial to brain development.

CHROMOSOMAL LOCATION

Genetic locus: DCX (human) mapping to Xq23; Dcx (mouse) mapping to X F2.

SOURCE

Doublecortin (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Doublecortin of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8066 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Doublecortin (C-18) is recommended for detection of Doublecortin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Doublecortin (C-18) is also recommended for detection of Doublecortin in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Doublecortin siRNA (h): sc-35214, Doublecortin siRNA (m): sc-35215, Doublecortin shRNA Plasmid (h): sc-35214-SH, Doublecortin shRNA Plasmid (m): sc-35215-SH, Doublecortin shRNA (h) Lentiviral Particles: sc-35214-V and Doublecortin shRNA (m) Lentiviral Particles: sc-35215-V.

Molecular Weight of Doublecortin: 40 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, mouse embryo extract: sc-364239 or rat brain extract: sc-2392.

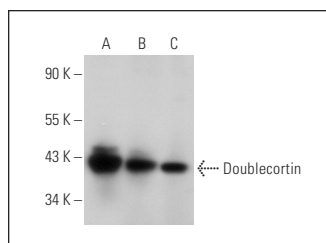
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

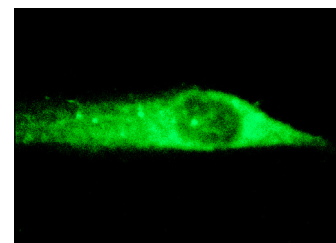
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



Doublecortin (C-18): sc-8066. Western blot analysis of Doublecortin expression in IMR-32 whole cell lysate (A) and mouse embryo (B) and rat brain (C) tissue extracts.



Doublecortin (C-18): sc-8066. Immunofluorescence staining of methanol-fixed SK-N-SH cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

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- Zhou, X., et al. 2015. Transcription factors COUP-TFI and COUP-TFII are required for the production of granule cells in the mouse olfactory bulb. *Development* 142: 1593-1605.
- Chugh, D., et al. 2015. Alterations in brain inflammation, synaptic proteins, and adult hippocampal neurogenesis during epileptogenesis in mice lacking Synapsin2. *PLoS ONE* 10: e0132366.
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- De La Rosa-Prieto, C., et al. 2015. Olfactory and cortical projections to bulbar and hippocampal adult-born neurons. *Front. Neuroanat.* 9: 4.
- De Lucia, C., et al. 2015. Microglia regulate hippocampal neurogenesis during chronic neurodegeneration. *Brain Behav. Immun.* E-published.



Try **Doublecortin (E-6): sc-271390** or **Doublecortin (E-5): sc-390645**, our highly recommended monoclonal alternatives to Doublecortin (C-18). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Doublecortin (E-6): sc-271390**.