

Doublecortin (N-19): sc-8067

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 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-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-8067 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Doublecortin (N-19) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Doublecortin (N-19) 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: SK-N-SH cell lysate: sc-2410, mouse embryo extract: sc-364239 or Doublecortin (h): 293T Lysate: sc-114231.

RESEARCH USE

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

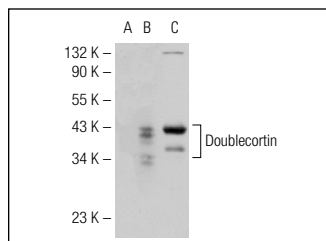
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

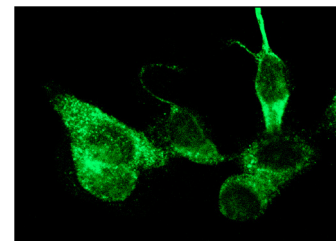
STORAGE

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

DATA



Doublecortin (N-19): sc-8067. Western blot analysis of Doublecortin expression in non-transfected 293T: sc-117752 (A), human Doublecortin transfected 293T: sc-114231 (B) and SK-N-SH (C) whole cell lysates.



Doublecortin (N-19): sc-8067. Immunofluorescence staining of methanol-fixed SK-N-SH cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

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3. Kadam, S.D., et al. 2009. Poststroke subgranular and rostral subventricular zone proliferation in a mouse model of neonatal stroke. *J. Neurosci. Res.* 87: 2653-2666.
4. Kajitani, K., et al. 2010. Developmental expression of the cyclin D2 splice variant in postnatal Purkinje cells of the mouse cerebellum. *Neurosci. Lett.* 477: 100-104.
5. Khaindrava, V., et al. 2011. High frequency stimulation of the subthalamic nucleus impacts adult neurogenesis in a rat model of Parkinson's disease. *Neurobiol. Dis.* 42: 284-291.
6. Greber, B., et al. 2011. FGF signalling inhibits neural induction in human embryonic stem cells. *EMBO J.* 30: 4874-4884.
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8. Ansorg, A., et al. 2012. Age-dependent kinetics of dentate gyrus neurogenesis in the absence of cyclin D2. *BMC Neurosci.* 13: 46.
9. Pan, Y.W., et al. 2013. Assessment of adult neurogenesis in mice. *Curr. Protoc. Toxicol.* 12: Unit12.20.



Try **Doublecortin (E-6): sc-271390** or **Doublecortin (E-5): sc-390645**, our highly recommended monoclonal alternatives to Doublecortin (N-19). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Doublecortin (E-6): sc-271390**.