

Doublecortin

Cat.No. 326 004; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µl antiserum, lyophilized. For reconstitution add 100 µl H ₂ O, then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) IP: yes ICC: not tested yet IHC: not recommended IHC-P/FFPE: 1 : 500
Immunogen	Recombinant protein corresponding to AA 271 to 366 from mouse Doublecortin (UniProt Id: Q6PGI2)
Reactivity	Reacts with: rat (Q9ESI7), mouse (Q6PGI2). Other species not tested yet.
Specificity	Specific for doublecortin.

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Doublecortin or **DCX** seems to be required for initial steps of neuronal dispersion and cortex lamination during cerebral cortex development. Mutations in the gene encoding this protein have been linked to the double cortex syndrome.

Doublecortin is highly expressed in neuronal cells of fetal brain but absent from other tissues. In the adult dentate gyrus it is only expressed in cells contributing to adult neurogenesis.

Selected General References

Redirection of doublecortin-positive cell migration by over-expression of the chemokines MCP-1, MIP-1α and GRO-α in the adult rat brain.

Tang SK, Knobloch RA, Maucksch C, Connor B
Neuroscience (2014) 260: 240-8.

Variability of doublecortin-associated dendrite maturation in adult hippocampal neurogenesis is independent of the regulation of precursor cell proliferation.

Plümpe T, Ehninger D, Steiner B, Klempin F, Jessberger S, Brandt M, Römer B, Rodriguez GR, Kronenberg G, Kempermann G
BMC neuroscience (2006) 7: 77.

Distinct roles of doublecortin modulating the microtubule cytoskeleton.

Moores CA, Perderiset M, Kappeler C, Kain S, Drummond D, Perkins SJ, Chelly J, Cross R, Houdusse A, Francis F
The EMBO journal (2006) 25(19): 4448-57.

Doublecortin is a developmentally regulated, microtubule-associated protein expressed in migrating and differentiating neurons.

Francis F, Koulakoff A, Boucher D, Chafey P, Schaar B, Vinet MC, Friocourt G, McDonnell N, Reiner O, Kahn A, McConnell SK, et al.

Neuron (1999) 23(2): 247-56.

Doublecortin, a brain-specific gene mutated in human X-linked lissencephaly and double cortex syndrome, encodes a putative signaling protein.

Gleeson JG, Allen KM, Fox JW, Lamperti ED, Berkovic S, Scheffer I, Cooper EC, Dobyns WB, Minnerath SR, Ross ME, Walsh CA, et al.

Cell (1998) 92(1): 63-72.