

ARG52266 anti-Doublecortin antibody [3 e1]

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [3 e1] recognizes Doublecortin
Tested Reactivity	Hu, Ms, Rat, Bov
Tested Application	ICC/IF, IHC-Fr, WB
Host	Mouse
Clonality	Monoclonal
Clone	3 e1
Isotype	IgG2A
Target Name	Doublecortin
Species	Human
Immunogen	Full length recombinant human protein expressed in and purified from E. coli
Conjugation	Un-conjugated
Alternate Names	LISX; Dublin; SCLH; Lissencephalin-X; Neuronal migration protein doublecortin; DC; Lis-X; DBCN; XLIS

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:1000
	IHC-Fr	1:1000
	WB	1:1000 - 1:5000
Application Note	<p>Specific for the ~35 & 45 k doublecortin protein.</p> <p>* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.</p>	

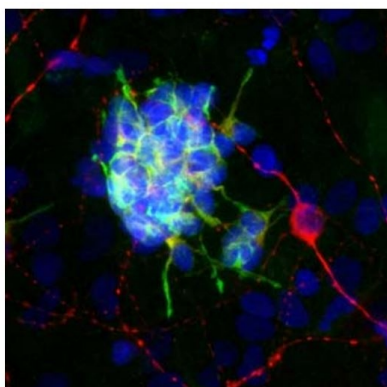
Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS, 5 mM Sodium azide and 50% Glycerol.
Preservative	5 mM Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Bioinformation

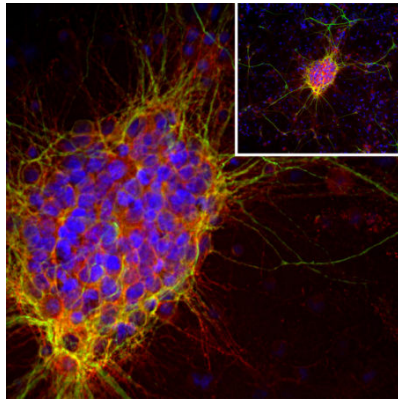
Database links	GeneID: 13193 Mouse GeneID: 1641 Human Swiss-port # O43602 Human Swiss-port # O88809 Mouse
Gene Symbol	DCX
Gene Full Name	doublecortin
Background	Doublecortin, or DCX, is a microtubule associated protein that is expressed almost exclusively in very early neuronal development (Brown et al., 2003), making it an excellent marker for developing neuronal cells. Defects in the DCX gene lead to X-linked lissencephaly which is characterized by a lack of normal folds on the surface of the brain resulting in a smooth cerebral cortex caused by abnormal migration of neurons during development (des Portes et al., 1998; Gleeson et al., 1998).
Highlight	Related Antibody Duos and Panels: ARG30093 Hippocampal Neurogenesis Marker Antibody Duo (Prox1, Dcx) Related products: Doublecortin antibodies ; Doublecortin Duos / Panels ; Anti-Mouse IgG secondary antibodies ; Related news: "Pro-aging factor" tied to immune-related molecule Neuronal Development Marker
Research Area	Controls and Markers antibody; Neuroscience antibody; Hippocampal Neurogenesis Marker antibody; Immature Neuronal Cells Marker antibody
Calculated Mw	41 kDa
PTM	Phosphorylation by MARK1, MARK2 and PKA regulates its ability to bind microtubules (By similarity). Phosphorylation at Ser-265 and Ser-297 seems to occur only in neonatal brain, the levels falling precipitously by postnatal day 21 (By similarity). Ubiquitinated by MDM2, leading to its degradation by the proteasome. Ubiquitinated by MDM2 and subsequent degradation leads to reduce the dendritic spine density of olfactory bulb granule cells.

Images



ARG52266 anti-Doublecortin antibody [3 e1] ICC/IF image

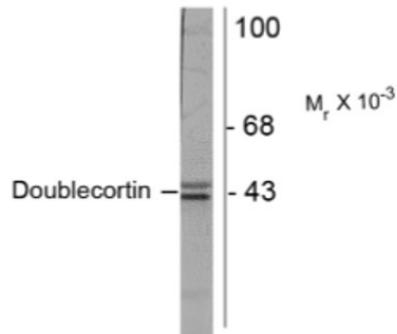
Immunofluorescence: cultured rat neurons showing strong cytoplasmic staining of doublecortin (green)(ARG52266) in developing neurons and GFAP (ARG52313) in red.



ARG52266 anti-Doublecortin antibody [3 e1] ICC/IF image

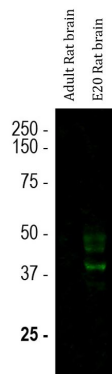
Immunofluorescence: Cortical neuron-glia cell culture from E20 Rat stained with ARG52266 anti-Doublecortin antibody [3 e1] (red) at 1:1000 dilution, and costained with anti-MAP2 antibody (green) at 1:10000 dilution. DAPI (blue) for nuclear staining.

The Doublecortin antibody reveals strong cytoplasmic staining in a population of small developing neurons and their processes, while the MAP2 antibody stains dendrites and perikarya of mature neurons.



ARG52266 anti-Doublecortin antibody [3 e1] WB image

Western Blot: postnatal day 3 rat brain lysate stained with Doublecortin antibody (ARG52266) showing specific immunolabeling of the ~35 & 45k doublecortin protein.



ARG52266 anti-Doublecortin antibody [3 e1] WB image

Western blot: Adult Rat brain (negative control) and embryonic E20 Rat brain lysates stained with ARG52266 anti-Doublecortin antibody [3 e1] (green) at 1:1000 dilution.