ARG40492
anti-Doublecortin antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Doublecortin
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Doublecortin
Species	Human
Immunogen	Recombinant protein of human Doublecortin.
Conjugation	Un-conjugated
Alternate Names	LISX; Doublin; SCLH; Lissencephalin-X; Neuronal migration protein doublecortin; DC; Lis-X; DBCN; XLIS

Application Instructions

Application table

Application	Dilution
ICC/IF	1:50
IHC-P	1:20
WB	1:1000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

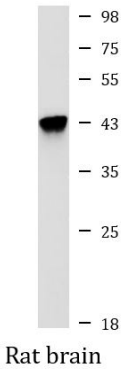
Properties

Form	Liquid
Purification	Affinity purified.
Buffer	50 mM Tris-Glycine (pH 7.4), 150 mM NaCl, 0.01% Sodium azide, 40% Glycerol and 0.05% BSA.
Preservative	0.01% Sodium azide
Stabilizer	40% Glycerol and 0.05% BSA
Concentration	Batch dependent
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. 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.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	DCX
Gene Full Name	doublecortin
Background	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, mental retardation, 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. [provided by RefSeq, Sep 2010]
Function	Microtubule-associated protein required for initial steps of neuronal dispersion and cortex lamination during cerebral cortex development. May act by competing with the putative neuronal protein kinase DCLK1 in binding to a target protein. May in that way participate in a signaling pathway that is crucial for neuronal interaction before and during migration, possibly as part of a calcium ion-dependent signal transduction pathway. May be part with PAFAH1B1/LIS-1 of overlapping, but distinct, signaling pathways that promote neuronal migration. [UniProt]
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. [UniProt]
Cellular Localization	Cytoplasm. Cell projection. Note=Localizes at neurite tips. [UniProt]

Images



ARG40492 anti-Doublecortin antibody WB image

Western blot: Rat brain lysate stained with ARG40492 anti-Doublecortin antibody at 1:1000 dilution.