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Anti-Doublecortin Picoband Antibody

Catalog # ABO10141

Specification

Anti-Doublecortin Picoband Antibody - Product Information

Application	**WB**
Primary Accession	O43602
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Neuronal migration protein doublecortin(DCX) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Doublecortin Picoband Antibody - Additional Information

Gene ID 1641

Other Names
Neuronal migration protein doublecortin, Doublin, Lissencephalin-X, Lis-X, DCX, DBCN, LISX

Calculated MW
40574 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Mouse, Rat, Human

Subcellular Localization
Cytoplasm. Cell projection . Localizes at neurite tips. .

Tissue Specificity
Highly expressed in neuronal cells of fetal brain (in the majority of cells of the cortical plate, intermediate zone and ventricular zone), but not expressed in other fetal tissues. In the adult, highly expressed in the brain frontal lobe, but very low expression in other regions of brain, and not detected in heart, placenta, lung, liver, skeletal muscles, kidney and pancreas.

Protein Name
Neuronal migration protein doublecortin

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the N-terminus of human Doublecortin (74-100aa QSLRFHQNMELDFGHFDERDKTSRNMR).

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins.

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-Doublecortin Picoband Antibody - Protein Information

Name DCX

Synonyms DBCN, LISX

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.

Cellular Location
Cytoplasm. Cell projection, neuron projection {ECO:0000250|UniProtKB:Q9ESI7}. Note=Localizes at neurite tips. {ECO:0000250|UniProtKB:Q9ESI7}

Tissue Location
Highly expressed in neuronal cells of fetal brain (in the majority of cells of the cortical plate, intermediate zone and ventricular zone), but not expressed in other fetal tissues. In the adult, highly expressed in the brain frontal lobe, but very low expression in other regions of brain, and not detected in heart, placenta, lung, liver, skeletal muscles, kidney and pancreas

Anti-Doublecortin Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Doublecortin Picoband Antibody - Images

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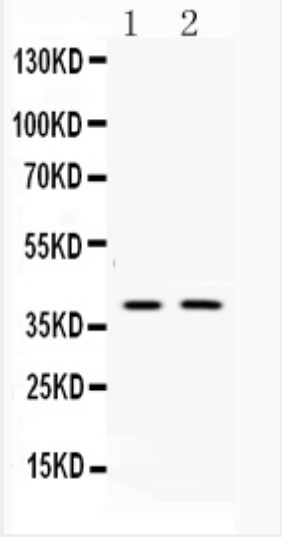

Western blot analysis of Doublecortin expression in rat brain extract (lane 1) and mouse brain extract (lane 2). Doublecortin at 40KD was detected using rabbit anti- Doublecortin Antigen Affinity purified polyclonal antibody (Catalog # ABO10141) at 0.5 Î¼g/mL. The blot was developed using chemiluminescence (ECL) method .

Anti-Doublecortin Picoband Antibody - Background

Neuronal migration protein doublecortin, also known as doublin or lissencephalin-X, is a protein that in humans is encoded by the DCX gene. 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. "