abcam

Product datasheet

Anti-Doublecortin antibody - Neuronal Marker ab28941

★★★★★ 2 Abreviews　1 References　画像数 2

製品の概要

製品名	Anti-Doublecortin antibody - Neuronal Marker
製品の詳細	Rabbit polyclonal to Doublecortin - Neuronal Marker
由来種	Rabbit
特異性	ab28941 detects mouse doublecortin protein at ~43kDa on mouse brain lysate as well ~70 kDa and 75 kDa bands which we believe to be doublecortin in complex with one of a number of associating proteins such as p35, p25 or cdk5. It is possible that reducing the lysate samples further will disassociate these larger ~70 kDa bands into their components. Both the 43 and 70kDa bands are completely blocked following preincubation with the doublecortin immunising peptide (ab19803), however the third ~75kDa band is only slightly blocked by peptide preincubation. WB in human brain lysate demonstrates the presence of a doublecortin specific 53 kDa band as well as a larger ~70kDa band (data not shown).
アプリケーション	**適用あり:** WB, ICC/IF **適用なし:** IHC-FoFr
種交差性	**交差種:** Mouse, Rat, Human **交差が予測される動物種:** Chicken, Chimpanzee
免疫原	Synthetic peptide conjugated to KLH derived from within residues 1 - 100 of Rat Doublecortin. Immunogen の所有権に関して (Peptide available as ab19803.)
ポジティブ・コントロール	Mouse brain lysate

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
精製度	Immunogen affinity purified
ポリ/モノ	ポリクローナル
アイソタイプ	IgG

アプリケーション

Our Abpromise guarantee covers the use of **ab28941** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション	Abreviews	特記事項
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 53, 70 kDa (predicted molecular weight: 43-53 kDa).
ICC/IF	★★★★★	Use a concentration of 1 - 5 µg/ml.

追加情報

Is unsuitable for IHC-FoFr.

ターゲット情報

機能

Seems to be required for initial steps of neuronal dispersion and cortex lamination during cerebral cortex development. May act by competing with the putative neuronal protein kinase DCAMKL1 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 LIS-1 of an overlapping, but distinct, signaling pathways that promote neuronal migration.

組織特異性

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.

関連疾患

Defects in DCX are the cause of lissencephaly X-linked type 1 (LISX1) [MIM:300067]; also called X-LIS or LIS. LISX1 is a classic lissencephaly characterized by mental retardation and seizures that are more severe in male patients. Affected boys show an abnormally thick cortex with absent or severely reduced gyri. Clinical manifestations include feeding problems, abnormal muscular tone, seizures and severe to profound psychomotor retardation. Female patients display a less severe phenotype referred to as 'doublecortex'.
Defects in DCX are the cause of subcortical band heterotopia X-linked (SBHX) [MIM:300067]; also known as double cortex or subcortical laminar heterotopia (SCLH). SBHX is a mild brain malformation of the lissencephaly spectrum. It is characterized by bilateral and symmetric plates or bands of gray matter found in the central white matter between the cortex and cerebral ventricles, cerebral convolutions usually appearing normal.
Note=A chromosomal aberration involving DCX is found in lissencephaly. Translocation t(X;2)(q22.3;p25.1).

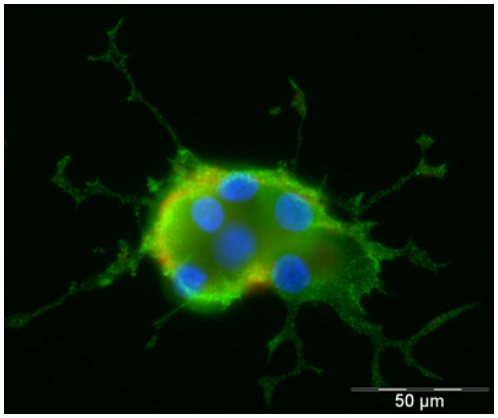
配列類似性

Contains 2 doublecortin domains.

細胞内局在

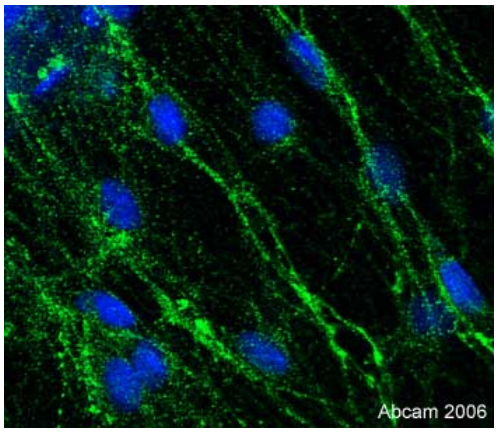
Cytoplasm.

画像



Immunocytochemistry/ Immunofluorescence - Doublecortin antibody - Neuronal Marker (ab28941)

ICC/IF image of ab28941 stained PC12 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab28941, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue).



Immunocytochemistry/ Immunofluorescence - Anti-Doublecortin antibody - Neuronal Marker (ab28941)

This image is courtesy of Randal Moldrich, CNRS UMR7637, ESPCI, France

Doublecortin antibody - Neuronal Marker (ab28941; 5ug/ml) cytosolic and axonal staining in dorsal root ganglion explants, dissected from 16 day-old rat embryos and cultured for 6 hours or 4 days in vitro with Neurobasal Medium containing 10% fetal calf serum and B27 supplement. Immunocytochemistry: All steps were performed in PBS. Cells or explants were fixed in 4% PFA for 15min, permeabilised with 0.1% TX100 for 10min and blocked with 5% BSA, 0.1% TX100 for 45min. ab28941 was incubated at 12h in 5% BSA, 0.1% TX100 at 4°C. Preincubation of ab28941 with immunising peptide ab19803 blocked immunostaining. To-pro-3 was used as a nuclear counterstain. Treated cultures were mounted on glass coverslips with Mowiol.

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