

Datasheet for ABIN4886559

anti-Doublecortin antibody (N-Term)



[Go to Product page](#)

1 Image

1 Publication

Overview

Quantity:	100 µg
Target:	Doublecortin (DCX)
Binding Specificity:	AA 74-100, N-Term
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Doublecortin antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Purpose:	Anti-Doublecortin/DCX Antibody Picoband®
Immunogen:	A synthetic peptide corresponding to a sequence at the N-terminus of human Doublecortin.
Sequence:	QSLRFHQNME LDFGHFDERD KTSRNMR
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins.
Characteristics:	Anti-Doublecortin/DCX Antibody Picoband® (ABIN4886559). Tested in WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.

Product Details

Purification: Immunogen affinity purified.

Target Details

Target: Doublecortin (DCX)

Alternative Name: DCX ([DCX Products](#))

Background: Synonyms: Neuronal migration protein doublecortin, Doublin, Lissencephalin-X, Lis-X, DCX, DBCN, LISX,
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.
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 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.

Molecular Weight: 40 kDa

Gene ID: 1641

UniProt: [O43602](#)

Application Details

Application Notes: Western blot, 0.1-0.5 µg/mL, Mouse, Rat, Human
1. Brown JP, Couillard-Després S, Cooper-Kuhn CM, Winkler J, Aigner L, Kuhn HG (December 2003). "Transient expression of doublecortin during adult neurogenesis". J. Comp. Neurol. 467 (1): 1-10. 2. Couillard-Despres S, Winner B, Schaubeck S, Aigner R, Vroemen M, Weidner N,

Application Details

Bogdahn U, Winkler J, Kuhn HG, Aigner L (January 2005). "Doublecortin expression levels in adult brain reflect neurogenesis". Eur. J. Neurosci. 21 (1): 1-14.

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB.

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 mg Sodium azide.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

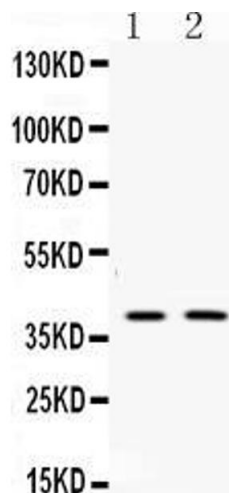
Handling Advice: Avoid repeated freezing and thawing.

Storage: 4 °C, -20 °C

Storage Comment: Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.

Publications

Product cited in: Zhang, Du, Yang, Wang, Yu, Huang, Hu, Liu, Fu: "Granulocyte colony-stimulating factor increases the therapeutic efficacy of bone marrow mononuclear cell transplantation in cerebral ischemia in mice." in: **BMC neuroscience**, Vol. 12, pp. 61, (2011) ([PubMed](#)).



Western Blotting

Image 1. 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 #) at 0.5 µg/mL. The blot was developed using chemiluminescence (ECL) method (Catalog # EK1002).