

## Anti-Doublecortin/DCX Antibody Picoband®

Catalog Number: A01053-1

### About DCX

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.

### Overview

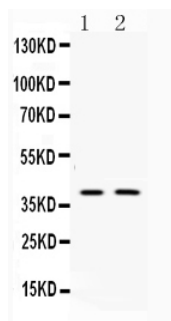
Product Name	Anti-Doublecortin/DCX Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Doublecortin/DCX Antibody Picoband® catalog # A01053-1. Tested in WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody 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.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> , and 0.05 mg NaN <sub>3</sub> . *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	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.
Host	Rabbit
Uniprot ID	O43602

### Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human Doublecortin.
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Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Mouse, Rat, Human

## Anti-Doublecortin/DCX Antibody Picoband® (A01053-1) Images



Western blot analysis of Doublecortin using anti-Doublecortin antibody (A01053-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. lane 1: rat brain tissue lysates, lane 2: mouse brain tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Doublecortin antigen affinity purified polyclonal antibody (Catalog # A01053-1) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Doublecortin at approximately 40KD. The expected band size for Doublecortin is at 40KD.

## 2 Publications Citing This Product

1. PubMed ID: 20973978, Zhang Xm, Du F, Yang D, Yu Cj, Huang Xn, Liu W, Fu J. Bmc Neurosci. 2010 Oct 25;11:138. Doi: 10.1186/1471-2202-11-138. Transplanted Bone Marrow Stem Cells Relocate To Infarct Penumbra And Co-Express Endogenous Proliferative And Immature Neuronal M...
2. PubMed ID: 21699735, Zhang Xm, Du F, Yang D, Wang R, Yu Cj, Huang Xn, Hu Hy, Liu W, Fu J. Bmc Neurosci. 2011 Jun 24;12:61. Doi: 10.1186/1471-2202-12-61. Granulocyte Colony-Stimulating Factor Increases The Therapeutic Efficacy Of Bone Marrow Mononuclear Cell Transplant...

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