

Doublecortin Recombinant Antibody [JJ0959] - Mouse IgG1 (Chimeric)

HA601497



Product Type:	Recombinant Chimeric, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	IHC-Fr, IHC-P, WB, mlHC
Molecular Wt:	Predicted band size: 41 kDa
Clone number:	JJ0959

Description: Neuronal migration protein doublecortin, also known as doublin or lissencephalin-X is a protein that in humans is encoded by the DCX gene. Doublecortin (DCX) is a microtubule-associated protein expressed by neuronal precursor cells and immature neurons in embryonic and adult cortical structures. Neuronal precursor cells begin to express DCX while actively dividing, and their neuronal daughter cells continue to express DCX for 2–3 weeks as the cells mature into neurons. Downregulation of DCX begins after 2 weeks, and occurs at the same time that these cells begin to express NeuN, a neuronal marker.

Immunogen: Synthetic peptide within Human Doublecortin aa 22-71 / 365.

Positive control: Mouse hippocampus tissue, rat hippocampus tissue, SH-SY5Y cell lysate, Mouse brain (P0) tissue lysate, Mouse brain (P60) tissue lysate.

Subcellular location: Cytoplasm, Cell projection, neuron projection.

Database links: SwissProt: O43602 Human | O88809 Mouse | Q9ESI7 Rat

Recommended Dilutions:

IHC-Fr	1:500
IHC-P	1:1,000
WB	1:10,000
mlHC	1:1,000

Storage Buffer: 1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). Store at -20℃ long term.

Purity: Protein A affinity purified.

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Orders:0086-571-88062880

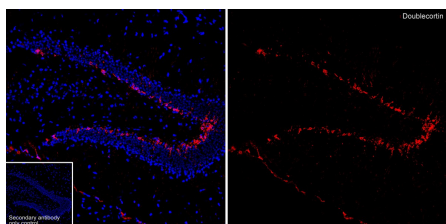
Technical:0086-571-89986345

Service mail:support@huabio.cn

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

**Fig1:** Application: IHC-Fr

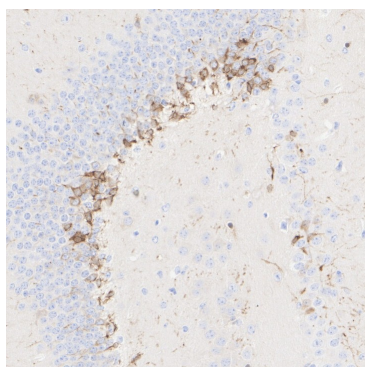
Species: Mouse

Site: hippocampus

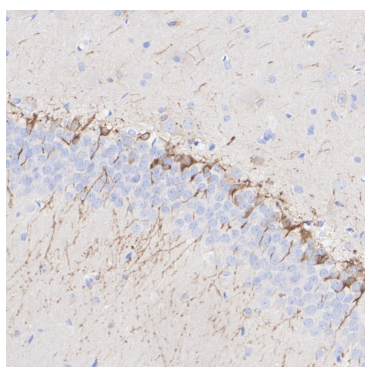
Sample: Frozen section

Antibody concentration: 1/500

Antigen retrieval: Not required

**Fig2:** Immunohistochemical analysis of paraffin-embedded mouse hippocampus tissue with Mouse anti-Doublecortin antibody (HA601497) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA601497) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

**Fig3:** Immunohistochemical analysis of paraffin-embedded rat hippocampus tissue with Mouse anti-Doublecortin antibody (HA601497) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA601497) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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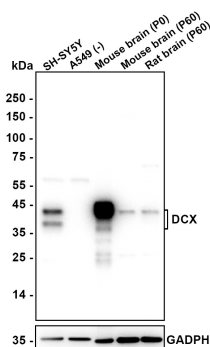


Fig4: Western blot analysis of Doublecortin on different lysates with Mouse anti-Doublecortin antibody (HA601497) at 1/10,000 dilution.

Lane 1: SH-SY5Y cell lysate (15 µg/Lane)

Lane 2: A549 cell lysate (negative) (15 µg/Lane)

Lane 3: Mouse brain (P0) tissue lysate (20 µg/Lane)

Lane 4: Mouse brain (P60) tissue lysate (20 µg/Lane)

Lane 5: Mouse brain (P60) tissue lysate (20 µg/Lane)

Predicted band size: 41 kDa

Observed band size: 41/45 kDa

Exposure time: 14 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA601497) at 1/10,000 dilution was used in primary antibody dilution (K1803) at 4 °C overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

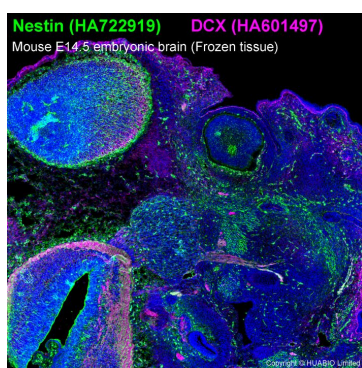


Fig5: mIHC analysis of mouse E14.5 embryo tissue (Frozen section) with Doublecortin (HA601497, 1/1,000) and antibody Nestin (HA722919, 1/1,000).

The immunostaining was performed with the IRISKitCmTSA Kit (900802). Blocking with 10% normal goat serum + 1% Triton X-100 + 0.3 M Glycine in TBST, 30 minutes at room temperature. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Fu X et al. Doublecortin and JIP3 are neural-specific counteracting regulators of dynein-mediated retrograde trafficking. *Elife*. 2022 Dec
2. Li YN et al. Doublecortin-Expressing Neurons in Human Cerebral Cortex Layer II and Amygdala from Infancy to 100 Years Old. *Mol Neurobiol*. 2023 Jun

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