

## Anti-Dlx5 antibody, guinea pig serum

74-117 50 µl

**Shipping and Storage:** Ship at 4°C or -20°C and store at -20°C.

**Immunogen:** Recombinant MBP-mouse Dlx5 (amino acids 1-135) fusion protein.

**Form:** Whole guinea pig antiserum added with 0.09 % sodium azide.

**Reactivity:** Reacts with mouse. May also react with rat and human from sequence homology.

### Applications:

1. Western blot (1/1,000)
2. Immunohistochemistry –Frozen Section (1/3,000)

**Background:** Transcriptional factor involved in bone development. Acts as an immediate early BMP-responsive transcriptional activator essential for osteoblast differentiation. Stimulates ALPL promoter activity in a RUNX2-independent manner during osteoblast differentiation. Stimulates SP7 promoter activity during osteoblast differentiation. Promotes cell proliferation by up-regulating MYC promoter activity. Involved as a positive regulator of both chondrogenesis and chondrocyte hypertrophy in the endochondral skeleton. Binds to the homeodomain-response element of the ALPL and SP7 promoter. Binds to the MYC promoter. Requires the 5'-TAATTA-3' consensus sequence for DNA-binding. Length: 289 amino acids. Mass (Da): 31,396

**Subcellular localization:** Nucleus.

**Data Link:** UniProtKB [P70396](https://www.uniprot.org/entry/P70396) (DLX5\_MOUSE)

A



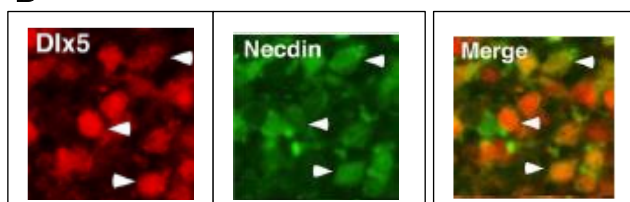
**Fig 1. Immunohistochemical staining of Dlx5 in mouse embryonic forebrain.**

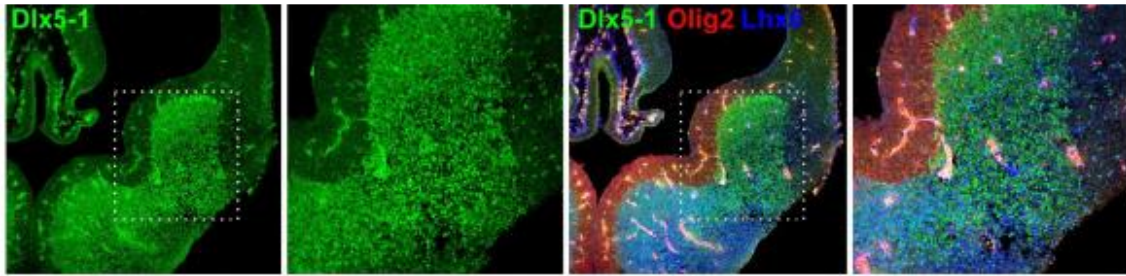
A. 13.5 forebrain cryo-section was immunostained for Dlx5.

B. Enlarged image of A of the septum. Double staining of Dlx5 with Necdin. Arrowheads indicate double-stained cells.

The anti-Dlx5 antibody was used at 1/3,000 dilution and anti-Necdin antibody (BioAcademia 74-100) was at 1/1,000.

B





**Fig 2. Immunohistochemical staining of Dlx5 in mouse embryonic forebrain: Comparison with other markers such as Oligo2 and Lhx6, expressed in the similar region.**

Sample is E13.5 Sections. The Dlx5 antiserum was used at 1/3,000 (green), anti-Oligo2 rabbit antibody (Red, Millipore) at 1/5,000, and anti-Lhx6 mouse antibody (Blue,Santa Cruz) at 1/200.

**Reference: This antibody has been used in the following publications.**

1. Kuwajima T et al. Necdin promotes GABAergic neuron differentiation in cooperation with Dlx homeodomain proteins. [J Neurosci](#). 2006 May 17;26(20):5383-92. PMID: [16707790](#) WB, IHC-F (mouse)
2. Bluske KK et al.  $\beta$ -Catenin signaling specifies progenitor cell identity in parallel with Shh signaling in the developing mammalian thalamus. [Development](#). 2012 Aug;139(15):2692-702. PMID: [22745311](#) IHC-F (mouse)

#### **Related products**

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