

Anti-Dlx2 antibody, guinea pig serum

Product code	74-116
Size	50 µl
Storage	Store 4°C for short term For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Concentration	N/A
Buffer	0.09% sodium azide
Purity	Guinea pig antiserum
Immunogen	Purified recombinant MBP-Dlx2 (amino acids 1-154) protein.
Isotype	Guinea pig IgG
Reactivity	Reacts with mouse, marmoset, human
Special notes	N/A
Application	<ol style="list-style-type: none"> 1. Western blot (1/1,000) 2. Immunofluorescent/Immunocytochemical staining 3. Immunohistochemistry (1/2,000-1/3,000) 4. Chromatin-ImmunoPrecipitation (assay dependent)
Background	<p>Acts as a transcriptional activator (PubMed:21875655). Plays a role in terminal differentiation of interneurons, such as amacrine and bipolar cells in the developing retina (PubMed:21875655). Likely to play a regulatory role in the development of the ventral forebrain (PubMed:1678612). May play a role in craniofacial patterning and morphogenesis (PubMed:1678612). Length:332 amino acids. Mass (Da): 34746</p> <p>Subcellular localization: Nucleus.</p>
Data Link	UniProtKB P40764 (DLX2_MOUSE)
Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.	

Data Images: 74-116 Anti-Dlx2 antibody, guinea pig serum

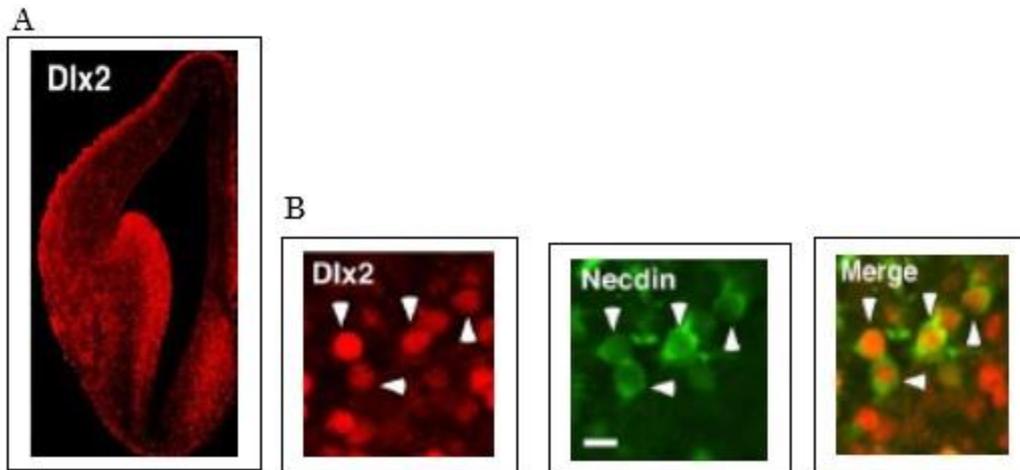


Fig Immunohistochemical staining of Dlx2 in mouse embryonic forebrain.

A. 13.5 forebrain cryo-section was immunostained for Dlx2.

B. Enlarged image of A of the septum. Double staining of Dlx2 with Necdin. Arrowheads indicate double-stained cells.

The anti-Dlx2 antibody was used at 1/3,000 dilution and anti-Necdin antibody (BioAcademia 74-100) was at 1/1,000.

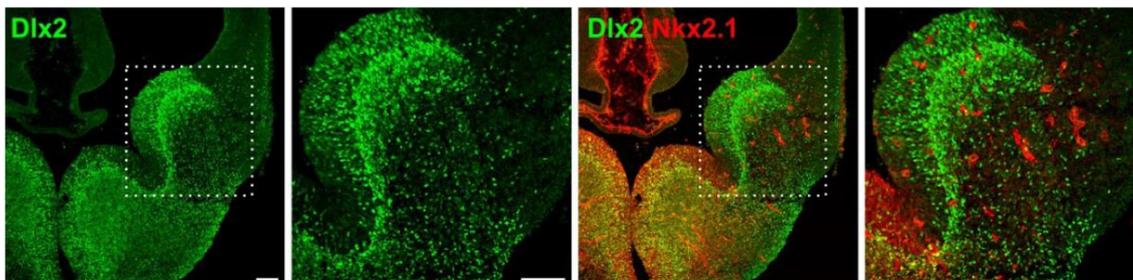


Fig 2. Immunohistochemical staining of Dlx2 in mouse embryonic forebrain: Comparison with Nkx2.1, expressed in the similar region.

Sample is E13.5 Sections. The Dlx2 antiserum was used at 1/3,000 (Green) and anti-Nkx2.1 mouse antibody (Red, Novocastra) at 1/500.

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](https://pubmed.ncbi.nlm.nih.gov/16707790/) WB, IHC-F (mouse)
2. Long JE et al. Dlx-dependent and -independent regulation of olfactory bulb interneuron differentiation. *J Neurosci.* 2007 Mar 21;27(12):3230-43. PMID: [17376983](https://pubmed.ncbi.nlm.nih.gov/17376983/) IHC (mouse). KO-Validated

3. Colasnte G et al. Arx is a direct target of Dlx2 and thereby contributes to the tangential migration of GABAergic interneurons. *J Neurosci.* 2008 Oct 15;28(42):10674-86. PMID: [18923043](#), **ChIP (mouse)**
4. Hansen DV et al. Non-epithelial stem cells and cortical interneuron production in the human ganglionic eminences. *Nat Neurosci.* 2013 Nov;16(11):1576-87. **IHC-F (human)**
5. Wu H et al. Dnmt3a-Dependent Nonpromoter DNA Methylation Facilitates Transcription of Neurogenic Genes. *Science.* 2010 Jul 23; 329(5990): 444–448. PMID: [20651149](#) **IHC-F (mouse)**
6. de Chevigny A et al. Dynamic expression of the pro-dopaminergic transcription factors Pax6 and Dlx2 during postnatal olfactory bulb neurogenesis. *Front Cell Neurosci.* 2012 Feb 27;6:6. PMID: [22371698](#). **IHC (mouse)**
7. Kuwajima T. et al. Nectin Promotes Tangential Migration of Neocortical Interneurons from Basal Forebrain. *J Neurosci.* 2010 Mar 10;30(10):3709-14. PMID: [20220004](#). **IHC-F (mouse)**
8. López-Juárez A. et al. Thyroid hormone signaling acts as a neurogenic switch by repressing Sox2 in the adult neural stem cell niche. *Cell Stem Cell.* 2012 May 4;10(5):531-43. PMID: [22560077](#). **IHC-F (mouse)**
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10. Ghanem N. et al. The Rb/E2F pathway modulates neurogenesis through direct regulation of the Dlx1/Dlx2 bigene cluster. *J Neurosci.* 2012 Jun 13;32(24):8219-30. PMID: [22699903](#). **IHC-F (mouse)**
11. Gajera CR et al. LRP2 in ependymal cells regulates BMP signaling in the adult neurogenic niche. *J Cell Sci.* 2010 Jun 1;123(Pt 11):1922-30. PMID: [20460439](#). **IHC (mouse)**
12. Potter GB et al. Generation of Cre-transgenic mice using *Dlx1/Dlx2* enhancers and their characterization in GABAergic interneurons. *Mol Cell Neurosci.* 2009 Feb;40(2):167-86. PMID: [19026749](#). **IHC-F (mouse)**
13. Bluske KK et al. β -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)**
14. Walzlein JH et al. The antitumorigenic response of neural precursors depends on subventricular proliferation and age. *Stem Cells.* 2008 Nov;26(11):2945-54. PMID: [18757298](#) **IHC (mouse)**
15. Rolando C et al. Extracerebellar progenitors grafted to the neurogenic milieu of the postnatal rat cerebellum adapt to the host environment but fail to acquire cerebellar identities. *Eur J Neurosci.* 2010 Apr;31(8):1340-51. PMID: [20384777](#). **IHC-F (rat)**
16. Zhong J et al. The Wnt receptor Ryk controls specification of GABAergic neurons versus oligodendrocytes during telencephalon development. *Development.* 2011 Feb;138(3):409-19. PMID: [21205786](#). **IHC-F (mouse)**
17. Tepavčević V et al. Inflammation-induced subventricular zone dysfunction leads to olfactory deficits in a targeted mouse model of multiple sclerosis. *J Clin Invest.* 2011 Dec;121(12):4722-34.

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18. Azim K et al. 3-dimensional examination of the adult mouse subventricular zone reveals lineage-specific microdomains. [PLoS One](#). 2012;7(11):e49087. PMID: [23166605](#). **IHC-F (mouse)**
19. Mukhopadhyay A et al. BMP receptor 1A regulates development of hypothalamic circuits critical for feeding behavior. [J Neurosci](#). 2012 Nov 28;32(48):17211-24. PMID:[23197713](#). **IHC-F (mouse)**
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23. Danjo T et al. Subregional specification of embryonic stem cell-derived ventral telencephalic tissues by timed and combinatorial treatment with extrinsic signals. [J Neurosci](#). 2011 Feb 2;31(5):1919-33. **IHC (mouse)**
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Related products

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