SANTA CRUZ BIOTECHNOLOGY, INC.

Dlx-2 (B-5): sc-393879

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Dlx genes are a highly conserved family of six different (Dlx1-6) homeo box-containing genes that share homology with distal-less (Dll), a gene expressed in the head and limbs of the developing fruit fly. Dlx genes are expressed in spatially and temporally restricted patterns in craniofacial primordia, basal telencephalon and diencephalon, and in distal regions of extending appendages, including the limb and the genital bud. The differential expression of Dlx influences patterning, morphogenesis and histogenesis in these tissues. The Dlx gene products can activate transcription and are localized primarily to the nucleus, although Dlx-5 can be found in the cytoplasm. Dlx proteins influence different stages of proper tissue development, including patterning of the orofacial skeleton (craniofacial ectomesenchyme) and differentiation of structures within and between teeth.

REFERENCES

1. Weiss, K.M., et al. 1995. Dlx and other homeobox genes in the morphological development of the dentition. Connect. Tissue Res. 32: 35-40.
2. Davideau, J.L., et al. 1999. Expression of Dlx-5 during human embryonic craniofacial development. Mech. Dev. 81: 183-186.
3. Eisenstat, D.D., et al. 1999. Dlx-1, Dlx-2, and Dlx-5 expression define distinct stages of basal forebrain differentiation. J. Comp. Neurol. 414: 217-237.

CHROMOSOMAL LOCATION

Genetic locus: DLX2 (human) mapping to 2q31.1; Dlx2 (mouse) mapping to 2 C2.

SOURCE

Dlx-2 (B-5) is a mouse monoclonal antibody raised against amino acids 211-250 mapping within an internal region of Dlx-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-393879 X, 200 µg/0.1 ml.

Dlx-2 (B-5) is available conjugated to agarose (sc-393879 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393879 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393879 PE), fluorescein (sc-393879 FITC), Alexa Fluor® 488 (sc-393879 AF488), Alexa Fluor® 546 (sc-393879 AF546), Alexa Fluor® 594 (sc-393879 AF594) or Alexa Fluor® 647 (sc-393879 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393879 AF680) or Alexa Fluor® 790 (sc-393879 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Dlx-2 (B-5) is recommended for detection of Dlx-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Dlx-2 siRNA (h): sc-38651, Dlx-2 siRNA (m): sc-38652, Dlx-2 shRNA Plasmid (h): sc-38651-SH, Dlx-2 shRNA Plasmid (m): sc-38652-SH, Dlx-2 shRNA (h) Lentiviral Particles: sc-38651-V and Dlx-2 shRNA (m) Lentiviral Particles: sc-38652-V.

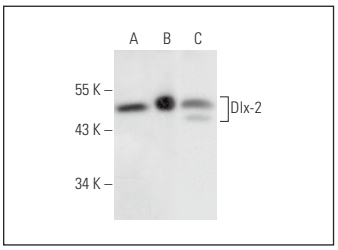
Dlx-2 (B-5) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of Dlx-2: 34 kDa.

Molecular Weight (observed) of Dlx-2: 45 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, mouse brain extract: sc-2253 or human brain extract: sc-364375.

DATA



Dlx-2 (B-5): sc-393879. Western blot analysis of Dlx-2 expression in Hep G2 whole cell lysate (**A**) and human brain (**B**) and mouse brain (**C**) tissue extracts.

SELECT PRODUCT CITATIONS

1. Alzubi, A. and Clowry, G.J. 2019. Expression of ventral telencephalon transcription factors ASCL1 and Dlx-2 in the early fetal human cerebral cortex. J. Anat. 235: 555-568.
2. Casalia, M.L., et al. 2021. Interneuron origins in the embryonic porcine medial ganglionic eminence. J. Neurosci. 41: 3105-3119.
3. Sanchez-Priego, C., et al. 2022. Mapping *cis*-regulatory elements in human neurons links psychiatric disease heritability and activity-regulated transcriptional programs. Cell Rep. 39: 110877.
4. Li, C., et al. 2023. Single-cell brain organoid screening identifies developmental defects in autism. Nature 621: 373-380.
5. Simmons, D.A., et al. 2025. Human striatal progenitor cells that contain inducible safeguards and overexpress BDNF rescue Huntington's disease phenotypes. Mol. Ther. Methods Clin. Dev. 33: 101415.

RESEARCH USE

For research use only, not for use in diagnostic procedures.