

Dlx-2 (C-20): sc-18140

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. Depew, M.J., et al. 1999. Dlx-5 regulates regional development of the branchial arches and sensory capsules. *Development* 126: 3831-3846.
4. 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.
5. Bendall, A.J., et al. 2000. Roles for Msx and Dlx homeoproteins in vertebrate development. *Gene* 247: 17-31.
6. Merlo, G.R., et al. 2000. Multiple functions of Dlx genes. *Int. J. Dev. Biol.* 44: 619-626.
7. LocusLink Report (LocusID: 1746). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

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

SOURCE

Dlx-2 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Dlx-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG 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-18140 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-18140 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Dlx-2 (C-20) is recommended for detection of Dlx-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 (C-20) 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: NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following .support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Diamond, E., et al. 2006. Functional interactions between Dlx-2 and lymphoid enhancer factor regulate Msx-2. *Nucleic Acids Res.* 34: 5951-5965.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **Dlx-2 (B-5): sc-393879** or **Dlx-2 (E-7): sc-390468**, our highly recommended monoclonal alternatives to Dlx-2 (C-20).