

▶ Dlx-6 (G-20): sc-18154

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 DLX5 during human embryonic craniofacial development. *Mech. Dev.* 81: 183-186.
3. Depew, M.J., et al. 1999. Dlx5 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: DLX6 (human) mapping to 7q21.3; Dlx6 (mouse) mapping to 6 A1.

SOURCE

Dlx-6 (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Dlx-6 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-18154 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-18154 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Dlx-6 (G-20) is recommended for detection of Dlx-6 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).

Dlx-6 (G-20) is also recommended for detection of Dlx-6 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for Dlx-6 siRNA (h): sc-38659, Dlx-6 siRNA (m): sc-38660, Dlx-6 shRNA Plasmid (h): sc-38659-SH, Dlx-6 shRNA Plasmid (m): sc-38660-SH, Dlx-6 shRNA (h) Lentiviral Particles: sc-38659-V and Dlx-6 shRNA (m) Lentiviral Particles: sc-38660-V.

Dlx-6 (G-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of Dlx-6: 20 kDa.

Molecular Weight (observed) of Dlx-6: 35 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

SELECT PRODUCT CITATIONS

1. Roca, H., et al. 2005. Cooperative interactions between RUNX2 and homeodomain protein-binding sites are critical for the osteoblast-specific expression of the bone sialoprotein gene. *J. Biol. Chem.* 280: 30845-30855.
2. Roca, H. and Franceschi, R.T. 2008. Analysis of transcription factor interactions in osteoblasts using competitive chromatin immunoprecipitation. *Nucleic Acids Res.* 36: 1723-1730.

RESEARCH USE

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

PROTOCOLS

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



Try **Dlx-6 (2D7): sc-517058**, our highly recommended monoclonal alternative to Dlx-6 (G-20).