SANTA CRUZ BIOTECHNOLOGY, INC.

Dlx-5 (C-20): sc-18152

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.

CHROMOSOMAL LOCATION

Genetic locus: DLX5 (human) mapping to 7q21.3; Dlx5 (mouse) mapping to 6 A1.

SOURCE

Dlx-5 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Dlx-5 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-18152 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-18152 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Dlx-5 (C-20) is recommended for detection of Dlx-5 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), immunohistochemistry (including paraffin-embedded sections) (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-5 (C-20) is also recommended for detection of Dlx-5 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Dlx-5 siRNA (h): sc-38657, Dlx-5 siRNA (m): sc-38658, Dlx-5 siRNA (r): sc-156086, Dlx-5 shRNA Plasmid (h): sc-38657-SH, Dlx-5 shRNA Plasmid (m): sc-38658-SH, Dlx-5 shRNA Plasmid (r): sc-156086-SH, Dlx-5 shRNA (h) Lentiviral Particles: sc-38657-V, Dlx-5 shRNA (m) Lentiviral Particles: sc-38658-V and Dlx-5 shRNA (r) Lentiviral Particles: sc-156086-V.

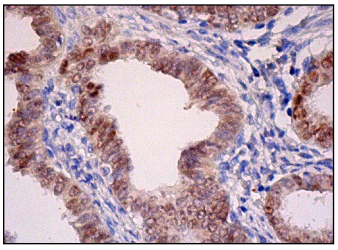
Dlx-5 (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Dlx-5: 35 kDa.

STORAGE

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

DATA



Dlx-5 (C-20): sc-18152. Immunoperoxidase staining of formalin fixed, paraffin-embedded human uterus tissue showing nuclear staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Hassan, M.Q., et al. 2004. Dlx-3 transcriptional regulation of osteoblast differentiation: temporal recruitment of Msx-2, Dlx-3, and Dlx-5 homeodomain proteins to chromatin of the osteocalcin gene. Mol. Cell. Biol. 24: 9248-9261.
2. Ulsamer, A., et al. 2008. BMP-2 induces osterix expression through up-regulation of Dlx-5 and its phosphorylation by p38. J. Biol. Chem. 283: 3816-3826.
3. Nishida, H., et al. 2008. Positive regulation of steroidogenic acute regulatory protein gene expression through the interaction between Dlx and GATA-4 for testicular steroidogenesis. Endocrinology 149: 2090-2097.
4. Tan, Y., et al. 2008. A novel recurrent chromosomal inversion implicates the homeobox gene Dlx-5 in T-cell lymphomas from Lck-Akt2 transgenic mice. Cancer Res. 68: 1296-1302.
5. Mikami, Y., et al. 2009. A new synthetic compound, SST-VEDI-1, inhibits osteoblast differentiation with a down-regulation of the Osterix expression. J. Biochem. 145: 239-247.
6. Kato, S., et al. 2009. Bone morphogenetic protein-2 induces the differentiation of a mesenchymal progenitor cell line, ROB-C26, into mature osteoblasts and adipocytes. Life Sci. 84: 302-310.

RESEARCH USE

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