SANTA CRUZ BIOTECHNOLOGY, INC.

HoxD1 (N-20): sc-19497

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Hox (homeobox) genes play an important role in the development and design of anterior-posterior body axes in animals. Although Hox proteins can bind to DNA as monomers, dimerization with PBX homeoproteins can significantly increase the DNA binding activity of these transcription factors. The HoxD9 gene is involved in the development and patterning of the fore-limb and axial skeleton. Transcriptional activation of HoxD9 has been shown to be enhanced by HMG1 (high mobility group protein 1) and antagonized by HoxD8, suggesting that Hox protein function depends on both DNA-protein and protein-protein interactions. The HOX genes are known to regulate a number of cell adhesion molecules (CAMs), with HoxD9 specifically increasing levels of L-CAM transcripts. In presomitic mesoderm, HoxD1 displays dynamic stripes of expression. In the three stages of diencephalon development, HoxD1 is strongly expressed in the first two stages and downregulated in the third stage.

CHROMOSOMAL LOCATION

Genetic locus: HOXD1 (human) mapping to 2q31.1; Hoxd1 (mouse) mapping to 2 C3.

SOURCE

HoxD1 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HoxD1 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-19497 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-19497 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HoxD1 (N-20) is recommended for detection of HoxD1 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).

HoxD1 (N-20) is also recommended for detection of HoxD1 in additional species, including bovine and porcine.

Suitable for use as control antibody for HoxD1 siRNA (h): sc-38696, HoxD1 siRNA (m): sc-38697, HoxD1 shRNA Plasmid (h): sc-38696-SH, HoxD1 shRNA Plasmid (m): sc-38697-SH, HoxD1 shRNA (h) Lentiviral Particles: sc-38696-V and HoxD1 shRNA (m) Lentiviral Particles: sc-38697-V.

HoxD1 (N-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

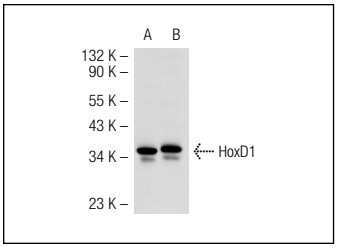
Molecular Weight of HoxD1: 41 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, Caki-1 cell lysate: sc-2224 or ECV304 cell lysate: sc-2269.

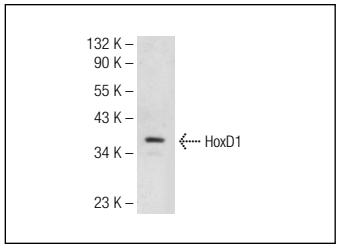
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecip-itation: 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.

DATA



HoxD1 (N-20): sc-19497. Western blot analysis of HoxD1 expression in HeLa nuclear extract (**A**) and Caki-1 whole cell lysate (**B**).



HoxD1 (N-20): sc-19497. Western blot analysis of HoxD1 expression in ECV304 whole cell lysate.

STORAGE

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

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.