SANTA CRUZ BIOTECHNOLOGY, INC.

# HoxD4 (D-14): sc-82926

## BACKGROUND

The Hox proteins are a family of transcription factors that play a role in development and cellular differentiation by regulating downstream target genes. Specifically, the Hox proteins direct DNA-protein and protein-protein interactions that assist in determining the morphologic features associated with the anterior-posterior body axis. Hox proteins are involved in controlling axial patterning, leukemias and hereditary malformations. HoxD4 (homeobox protein D4), also known as HOX4B, is a 255 amino acid protein that localizes to the nucleus and contains one homeobox DNA-binding domain. One of several members of the homeobox superfamily, HoxD4 functions as a sequence-specific transcription factor that is important for the correct positioning of developing limb buds on the anterior-posterior axis. Mutations in the gene encoding HoxD4 are associated with the pathogenesis of childhood acute lymphoblastic leukemia.

## REFERENCES


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## CHROMOSOMAL LOCATION

Genetic locus: HOXD4 (human) mapping to 2q31.1; Hoxd4 (mouse) mapping to 2 C3.

## SOURCE

HoxD4 (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HoxD4 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.

Blocking peptide available for competition studies, sc-82926 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-82926 X, 200 µg/0.1 ml.

## APPLICATIONS

HoxD4 (D-14) is recommended for detection of HoxD4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other Hox family members.

Suitable for use as control antibody for HoxD4 siRNA (h): sc-75295, HoxD4 siRNA (m): sc-75296, HoxD4 shRNA Plasmid (h): sc-75295-SH, HoxD4 shRNA Plasmid (m): sc-75296-SH, HoxD4 shRNA (h) Lentiviral Particles: sc-75295-V and HoxD4 shRNA (m) Lentiviral Particles: sc-75296-V.

HoxD4 (D-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HoxD4: 28 kDa.

## 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) 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.

## 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.