

# HoxB13 (N-14): sc-46128

## BACKGROUND

HOX genes play a fundamental role in the development of the vertebrate central nervous system, heart, axial skeleton, limbs, gut, urogenital tract and external genitalia. HoxB13 is a sequence-specific transcription factor which is part of a developmental regulatory system that provides cells with specific positional identities on the anterior-posterior axis. HoxB13 is highly expressed in the prostate gland from the embryonic stages to adulthood and is required for normal differentiation and secretory function of that organ. Hox B13 is primarily expressed in the nucleus, but is cytoplasmic throughout fetal skin development and some hyperproliferative skin conditions.

## REFERENCES

1. Zeltser, L., et al. 1996. HoxB13: a new Hox gene in a distant region of the HOXB cluster maintains colinearity. *Development* 122: 2475-2484.
2. Stelnicki, E.J., et al. 1998. Modulation of the human homeobox genes PRX2 and HoxB13 in scarless fetal wounds. *J. Invest. Dermatol.* 111: 57-63.
3. Economides, K.D., et al. 2003. HoxB13 is required for normal differentiation and secretory function of the ventral prostate. *Development* 130: 2061-2069.
4. Komuves, L.G., et al. 2003. HoxB13 homeodomain protein is cytoplasmic throughout fetal skin development. *Dev. Dyn.* 227: 192-202.
5. Jung, C., et al. 2004. HoxB13 homeodomain protein suppresses the growth of prostate cancer cells by the negative regulation of T cell factor 4. *Cancer Res.* 64: 3046-3051.

## CHROMOSOMAL LOCATION

Genetic locus: HOXB13 (human) mapping to 17q21.2; Hoxb13 (mouse) mapping to 11 D.

## SOURCE

HoxB13 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HoxB13 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-46128 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-46128 X, 200 µg/0.1 ml.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

HoxB13 (N-14) is recommended for detection of HoxB13 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); may cross-react with HoxA13.

Suitable for use as control antibody for HoxB13 siRNA (h): sc-43851, HoxB13 siRNA (m): sc-45668, HoxB13 shRNA Plasmid (h): sc-43851-SH, HoxB13 shRNA Plasmid (m): sc-45668-SH, HoxB13 shRNA (h) Lentiviral Particles: sc-43851-V and HoxB13 shRNA (m) Lentiviral Particles: sc-45668-V.

HoxB13 (N-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HoxB13: 34 kDa.

Positive Controls: LNCaP cell lysate: sc-2231.

## 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.

## RESEARCH USE

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

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Try **HoxB13 (F-9): sc-28333**, our highly recommended monoclonal alternatives to HoxB13 (N-14). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **HoxB13 (F-9): sc-28333**.