

# HoxC13 (A-15): sc-82905

## 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. HoxC13 (homeobox C13), also known as HOX3 or HOX3G, is a 330 amino acid protein that contains one homeobox DNA-binding domain and is a member of the Abd-B homeobox family. Localized to the nucleus, HoxC13 functions as a sequence-specific transcription factor that, in conjunction with a variety of other proteins, provides cells with positional identities on their anterior-posterior axis. Via its ability to modify features of the anterior-posterior body axis, HoxC13 is thought to play a role in the development of nails, hair and filiform papilla.

## REFERENCES

1. Acampora, D., et al. 1989. The human HOX gene family. *Nucleic Acids Res.* 17: 10385-10402.
2. Apiou, F., et al. 1996. Fine mapping of human HOX gene clusters. *Cytogenet. Cell Genet.* 73: 114-115.
3. Godwin, A.R. and Capecchi, M.R. 1998. HoxC13 mutant mice lack external hair. *Genes Dev.* 12: 11-20.
4. Godwin, A.R. and Capecchi, M.R. 1999. Hair defects in HoxC13 mutant mice. *J. Investig. Dermatol. Symp. Proc.* 4: 244-247.
5. Kulesa, H., et al. 2000. Inhibition of BMP signaling affects growth and differentiation in the anagen hair follicle. *EMBO J.* 19: 6664-6674.
6. Kosaki, K., et al. 2002. Complete mutation analysis panel of the 39 human HOX genes. *Teratology* 65: 50-62.
7. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002 Johns Hopkins University, Baltimore, MD. MIM Number: 142976. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: HOXC13 (human) mapping to 12q13.13; Hoxc13 (mouse) mapping to 15 F3.

## SOURCE

HoxC13 (A-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HoxC13 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-82905 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

HoxC13 (A-15) is recommended for detection of HoxC13 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.

HoxC13 (A-15) is also recommended for detection of HoxC13 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HoxC13 siRNA (h): sc-75285, HoxC13 siRNA (m): sc-75286, HoxC13 shRNA Plasmid (h): sc-75285-SH, HoxC13 shRNA Plasmid (m): sc-75286-SH, HoxC13 shRNA (h) Lentiviral Particles: sc-75285-V and HoxC13 shRNA (m) Lentiviral Particles: sc-75286-V.

HoxC13 (A-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HoxC13: 35 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **HoxC13 (F-5): sc-514377** or **HoxC13 (SS-39): sc-81967**, our highly recommended monoclonal alternatives to HoxC13 (A-15).