



# HoxC11 (K-19): sc-82903

## BACKGROUND

Homeobox (HOX) genes, which share a highly conserved 183 bp sequence, encode proteins capable of binding to specific DNA sequences and functioning as transcription factors. During embryogenesis, HOX genes play a critical role in the spatial and temporal differentiation of cells. HoxC11 (homeobox C11), also known as HOX3H, is a transcription factor belonging to the Abd-B homeobox family. The Abd-B family of Hox proteins are related to the *Drosophila* abdominal-B gene and differ from other Hox proteins because they do not contain the conserved pentapeptide motif. HoxC11 is highly expressed in fetal tissues, particularly fetal intestine, suggesting that it may be involved in early intestinal development. HoxC11 localizes to the nucleus and contains one homeobox DNA-binding domain. It binds to the promoter element of lactase-phlorizin hydrolase (LCT), stimulating LCT transcription. HoxC11 is also believed to activate the transcription of S-100  $\beta$  chain.

## REFERENCES

1. Scott, M.P. 1992. Vertebrate homeobox gene nomenclature. *Cell* 71: 551-553.
2. Mitchelmore, C., et al. 1998. The HOXC11 homeodomain protein interacts with the lactase-phlorizin hydrolase promoter and stimulates HNF1 $\alpha$ -dependent transcription. *J. Biol. Chem.* 273: 13297-13306.
3. Sur, I.P., et al. 2000. Repression of transcription by HoxC11 upon phorbol ester stimulation. *Mol. Cell Biol. Res. Commun.* 3: 367-373.
4. Wellik, D.M., et al. 2002. Hox11 paralogous genes are essential for metanephric kidney induction. *Genes Dev.* 16: 1423-1432.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605559. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Gu, B.W., et al. 2003. Major form of Nup98/HoxC11 fusion in adult AML with t(11;12)(p15;q13) translocation exhibits aberrant transregulatory activity. *Leukemia* 17: 1858-1864.

## CHROMOSOMAL LOCATION

Genetic locus: HOXC11 (human) mapping to 12q13.13; Hoxc11 (mouse) mapping to 15 F3.

## SOURCE

HoxC11 (K-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HoxC11 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-82903 P, (100  $\mu$ g 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-82903 X, 200  $\mu$ g/0.1 ml.

## APPLICATIONS

HoxC11 (K-19) is recommended for detection of HoxC11 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 HoxC11 siRNA (h): sc-75283, HoxC11 siRNA (m): sc-75284, HoxC11 shRNA Plasmid (h): sc-75283-SH, HoxC11 shRNA Plasmid (m): sc-75284-SH, HoxC11 shRNA (h) Lentiviral Particles: sc-75283-V and HoxC11 shRNA (m) Lentiviral Particles: sc-75284-V.

HoxC11 (K-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HoxC11: 34 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](http://www.scbt.com) or our catalog for detailed protocols and support products.