

HoxC5 (P-20): sc-82912

BACKGROUND

The Hox homeobox genes encode proteins that are transcriptional regulators with an established role in embryonic development. HoxC5 (homeobox C5), also known as CP11, HOX3 or HOX3D, is a 222 amino acid protein that localizes to the nucleus and contains one homeobox DNA-binding domain. Existing as multiple alternatively spliced isoforms, HoxC5 functions as a sequence-specific DNA-binding transcription factor that is part of a regulatory mechanism that provides cells with positional identities during development. The gene encoding HoxC5 maps to a cluster of Hox proteins on chromosome 12 that are essential for morphogenesis. Encoding over 1,100 genes within 132 million bases, chromosome 12 makes up about 4.5% of the human genome. A number of skeletal deformities are linked to chromosome 12, including hypochondrogenesis, achondrogenesis and Kniest dysplasia.

REFERENCES

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2. McAlpine, P.J. and Shows, T.B. 1990. Nomenclature for human homeobox genes. *Genomics* 7: 460.
3. Arcioni, L., Simeone, A., Guazzi, S., Zappavigna, V., Boncinelli, E. and Mavilio, F. 1992. The upstream region of the human homeobox gene HOX3D is a target for regulation by retinoic acid and HOX homeoproteins. *EMBO J.* 11: 265-277.
4. Guazzi, S., Lonigro, R., Pintonello, L., Boncinelli, E., Di Lauro, R. and Mavilio, F. 1994. The thyroid transcription factor-1 gene is a candidate target for regulation by Hox proteins. *EMBO J.* 13: 3339-3347.

CHROMOSOMAL LOCATION

Genetic locus: HOXC5 (human) mapping to 12q13.13; Hoxc5 (mouse) mapping to 15 F3.

SOURCE

HoxC5 (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HoxC5 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-82912 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-82912 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

HoxC5 (P-20) is recommended for detection of HoxC5 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); non cross-reactive with other Hox family members.

Suitable for use as control antibody for HoxC5 siRNA (h): sc-75287, HoxC5 siRNA (m): sc-75288, HoxC5 shRNA Plasmid (h): sc-75287-SH, HoxC5 shRNA Plasmid (m): sc-75288-SH, HoxC5 shRNA (h) Lentiviral Particles: sc-75287-V and HoxC5 shRNA (m) Lentiviral Particles: sc-75288-V.

HoxC5 (P-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

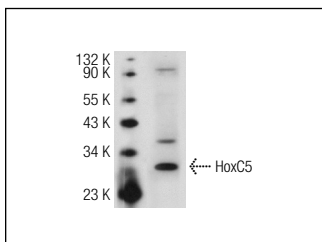
Molecular Weight of HoxC5: 25 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

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) Immunoprecipitation: 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



HoxC5 (P-20): sc-82912. Western blot analysis of HoxC5 expression in NIH/3T3 whole cell lysate.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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Try **HoxC5 (1E10): sc-517171**, our highly recommended monoclonal alternative to HoxC5 (P-20).