

# HoxC13 (F-5): sc-514377

## 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 HOXC3 or HOXC3G, 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

HoxC13 (F-5) is a mouse monoclonal antibody raised against amino acids 115-291 mapping within an internal region of HoxC13 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HoxC13 (F-5) is available conjugated to agarose (sc-514377 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514377 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514377 PE), fluorescein (sc-514377 FITC), Alexa Fluor® 488 (sc-514377 AF488), Alexa Fluor® 546 (sc-514377 AF546), Alexa Fluor® 594 (sc-514377 AF594) or Alexa Fluor® 647 (sc-514377 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514377 AF680) or Alexa Fluor® 790 (sc-514377 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

HoxC13 (F-5) is recommended for detection of HoxC13 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

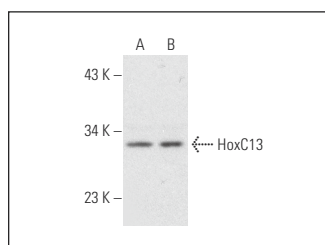
Molecular Weight of HoxC13: 35 kDa.

Positive Controls: A549 cell lysate: sc-2413 or A549 nuclear extract.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BPFITC: sc-516140 or m-IgGκ BPPPE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



HoxC13 (F-5): sc-514377. Western blot analysis of HoxC13 expression in A549 whole cell lysate (A) and A549 nuclear extract (B).

## SELECT PRODUCT CITATIONS

1. Yao, Y., et al. 2017. HoxC13 promotes proliferation of lung adenocarcinoma via modulation of CCND1 and CCNE1. *Am. J. Cancer Res.* 7: 1820-1834.
2. Luo, J., et al. 2018. HoxC13 promotes proliferation of esophageal squamous cell carcinoma via repressing transcription of CASP3. *Cancer Sci.* 109: 317-329.
3. Aires, R., et al. 2019. Tail bud progenitor activity relies on a network comprising Gdf11, Lin28, and Hox13 genes. *Dev. Cell* 48: 383-395.e8.
4. Ishii, Y., et al. 2020. The homeobox transcription factor HoxC13 upregulates human papillomavirus E1 gene expression and contributes to viral genome maintenance. *FEBS Lett.* 594: 751-762.
5. Ishii, Y., et al. 2024. Differential requirement of the transcription factor HOXC13 for the stable maintenance of human papillomavirus genome among high-risk genotypes. *Virology* 597: 110151.

## 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) for detailed protocols and support products.