

# HoxD13 (E-20): sc-46363

## BACKGROUND

The Hox proteins 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. HoxD13 is a sequence-specific transcription factor that provides cells with specific positional identities on the anterior-posterior axis of developing mammals. Defects in HoxD13 are the cause of synpolydactyly (SPD). SPD is a limb malformation that shows a characteristic manifestation in both hands and feet. This condition is inherited as an autosomal dominant trait with reduced penetrance. Defects in HoxD13 are also the cause of brachydactyly type D and type E.

## REFERENCES

- Mendioroz, J., et al. 2005. Sensorineural deafness, abnormal genitalia, synostosis of metacarpals and metatarsals 4 and 5, and mental retardation: description of a second patient and exclusion of HoxD13. *Am. J. Med. Genet. A* 135: 211-213.
- Lin, Y.W., et al. 2005. NUP98-HoxD13 transgenic mice develop a highly penetrant, severe myelodysplastic syndrome that progresses to acute leukemia. *Blood* 106: 287-295.
- Pineault, N., et al. 2005. Transplantable cell lines generated with NUP98-Hox fusion genes undergo leukemic progression by Meis1 independent of its binding to DNA. *Leukemia* 19: 636-643.
- Zhao, X.L., et al. 2005. HoxD13 polyaniline tract expansion in synpolydactyly: mutation detection and prenatal diagnosis in a large Chinese family. *Zhonghua Yi Xue Yi Chuan Xue Za Zhi* 22: 5-9.
- Williams, T.M., et al. 2005. Range of Hox/TALE superclass associations and protein domain requirements for HoxA13:Meis interaction. *Dev. Biol.* 277: 457-471.
- Williams, T.M., et al. 2005. Candidate downstream regulated genes of Hox group 13 transcription factors with and without monomeric DNA binding capability. *Dev. Biol.* 279: 462-480.

## CHROMOSOMAL LOCATION

Genetic locus: HOXD13 (human) mapping to 2q31.1; Hoxd13 (mouse) mapping to 2 C3.

## SOURCE

HoxD13 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HoxD13 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-46363 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-46363 X, 200 µg/0.1 ml.

## APPLICATIONS

HoxD13 (E-20) is recommended for detection of HoxD13 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).

HoxD13 (E-20) is also recommended for detection of HoxD13 in additional species, including bovine, porcine and avian.

Suitable for use as control antibody for HoxD13 siRNA (h): sc-45656, HoxD13 siRNA (m): sc-45657, HoxD13 shRNA Plasmid (h): sc-45656-SH, HoxD13 shRNA Plasmid (m): sc-45657-SH, HoxD13 shRNA (h) Lentiviral Particles: sc-45656-V and HoxD13 shRNA (m) Lentiviral Particles: sc-45657-V.

HoxD13 (E-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HoxD13: 36 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.