SANTA CRUZ BIOTECHNOLOGY, INC.

HoxD13 (S-20): sc-46365

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

1. 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.
2. 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.
3. 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.
4. Zhao, X.L., et al. 2005. HoxD13 polyalanine 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.
5. 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.

CHROMOSOMAL LOCATION

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

SOURCE

HoxD13 (S-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-46365 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-46365 X, 200 µg/0.1 ml.

RESEARCH USE

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

APPLICATIONS

HoxD13 (S-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), 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).

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

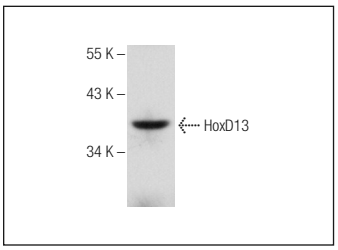
Molecular Weight of HoxD13: 36 kDa.

Positive Controls: Rat brain extract: sc-2392.

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



HoxD13 (S-20): sc-46365. Western blot analysis of HoxD13 expression in rat brain tissue extract.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.