

HoxD11 (R-26): sc-81969

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. HoxD11 (homeobox D11), also known as HOX4 or HOX4F, is a 338 amino acid protein that contains one homeobox DNA-binding domain and is a member of the Abd B homeobox family. Localized to the nucleus, HoxD11 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. Defects in the gene encoding HoxD11 are associated with severe limb and genital abnormalities, suggesting that HoxD11 plays an important role in forelimb morphogenesis.

REFERENCES

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4. Kmita, M., et al. 2002. Serial deletions and duplications suggest a mechanism for the collinearity of HOXD genes in limbs. *Nature* 420: 145-150.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 142986. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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CHROMOSOMAL LOCATION

Genetic locus: HOXD11 (human) mapping to 2q31.1; Hoxd11 (mouse) mapping to 2 C3.

SOURCE

HoxD11 (R-26) is a mouse monoclonal antibody raised against recombinant HoxD11 of human origin.

STORAGE

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

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

HoxD11 (R-26) is recommended for detection of HoxD11 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).

Suitable for use as control antibody for HoxD11 siRNA (h): sc-75291, HoxD11 siRNA (m): sc-75292, HoxD11 shRNA Plasmid (h): sc-75291-SH, HoxD11 shRNA Plasmid (m): sc-75292-SH, HoxD11 shRNA (h) Lentiviral Particles: sc-75291-V and HoxD11 shRNA (m) Lentiviral Particles: sc-75292-V.

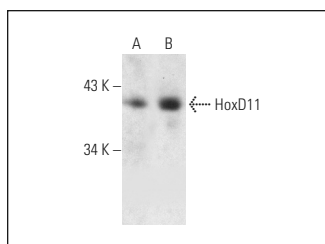
Molecular Weight of HoxD11: 36 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Jurkat nuclear extract: sc-2132 or LNCaP cell lysate: sc-2231.

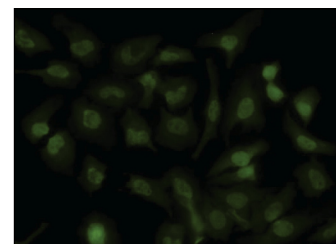
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (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 BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



HoxD11 (R-26): sc-81969. Western blot analysis of HoxD11 expression in LNCaP whole cell lysate (A) and Jurkat nuclear extract (B).



HoxD11 (R-26): sc-81969. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Gu, S., et al. 2023. Nephrotoxicity assessment of Esculentoside A using human-induced pluripotent stem cell-derived organoids. *Phyther. Res.* E-published.

RESEARCH USE

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