

HoxD9 (H-2): sc-137134

BACKGROUND

The Hox proteins play a role in patterns of embryonic development and cellular differentiation by regulating downstream target genes. *In vivo*, the HoxD9 protein interacts with the autoregulatory and cross-regulatory enhancers of the murine HoxB1 and human HoxD9 genes. Specifically, the HoxD9 protein interacts with the human control region (HCR) of the HoxD9 gene, thus inducing transcription of the HoxD9 promoter. HoxD9 may be a multifunctional transcriptional regulator as it contains different activation domains. Activation of HoxD9 depends on the structure of the target regulatory element, and results in differential cofactor interaction. The HoxD9 protein is expressed in the early stages of mouse joint development, primarily in the articular cartilage. HoxD9 transcripts are also detected in the synovial tissue of arthritic mice, but not in that of normal mice, suggesting that HoxD9 may have a role in the pathology of arthritis. Furthermore, the HoxD9 protein is highly expressed in the synoviocytes of patients with rheumatoid arthritis (RA), but not in osteoarthritis patients. The human HoxD9 protein is also differentially expressed in the human cervical cancer cell line, HeLa, but is not expressed in the normal cervix and may thus play a role in tumorigenesis.

CHROMOSOMAL LOCATION

Genetic locus: HOXD9 (human) mapping to 2q31.1; Hoxd9 (mouse) mapping to 2 C3.

SOURCE

HoxD9 (H-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 27-58 near the N-terminus of HoxD9 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain 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-137134 X, 200 µg/0.1 ml.

HoxD9 (H-2) is available conjugated to agarose (sc-137134 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-137134 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-137134 PE), fluorescein (sc-137134 FITC), Alexa Fluor® 488 (sc-137134 AF488), Alexa Fluor® 546 (sc-137134 AF546), Alexa Fluor® 594 (sc-137134 AF594) or Alexa Fluor® 647 (sc-137134 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-137134 AF680) or Alexa Fluor® 790 (sc-137134 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-137134 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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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

HoxD9 (H-2) is recommended for detection of HoxD9 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 HoxD9 siRNA (h): sc-35585, HoxD9 siRNA (m): sc-35586, HoxD9 shRNA Plasmid (h): sc-35585-SH, HoxD9 shRNA Plasmid (m): sc-35586-SH, HoxD9 shRNA (h) Lentiviral Particles: sc-35585-V and HoxD9 shRNA (m) Lentiviral Particles: sc-35586-V.

HoxD9 (H-2) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

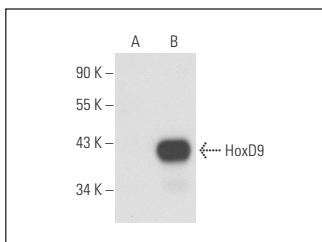
Molecular Weight of HoxD9: 38 kDa.

Positive Controls: HoxD9 (h): 293T Lysate: sc-115615, HoxD9 (m): 293T Lysate: sc-126973 or HeLa whole cell lysate: sc-2200.

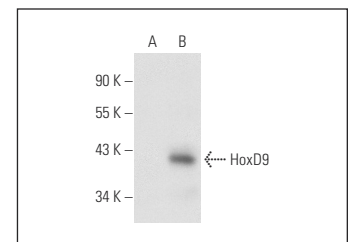
RECOMMENDED SUPPORT REAGENTS

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



HoxD9 (H-2): sc-137134. Western blot analysis of HoxD9 expression in non-transfected: sc-117752 (A) and human HoxD9 transfected: sc-115615 (B) 293T whole cell lysates.



HoxD9 (H-2): sc-137134. Western blot analysis of HoxD9 expression in non-transfected: sc-117752 (A) and mouse HoxD9 transfected: sc-126973 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Chang, J., et al. 2021. HOXD9-induced SCNN1A upregulation promotes pancreatic cancer cell proliferation, migration and predicts prognosis by regulating epithelial-mesenchymal transformation. *Mol. Med. Rep.* 24: 819.

PROTOCOLS

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