

# HoxD9 (H-342): sc-8320

## 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.

## SOURCE

HoxD9 (H-342) is a rabbit polyclonal antibody raised against amino acids 1-342 representing full length HoxD9 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-8320 X, 200 µg/0.1 ml.

## APPLICATIONS

HoxD9 (H-342) is recommended for detection of HoxD9 and, to a lesser extent, HoxC9, HoxA9 and HoxB9 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).

HoxD9 (H-342) is also recommended for detection of HoxD9 and, to a lesser extent, HoxA9, HoxB9 and HoxC9 in additional species, including bovine and porcine.

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-342) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

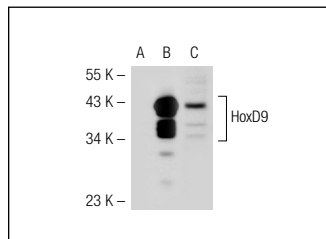
Molecular Weight of HoxD9: 38 kDa.

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

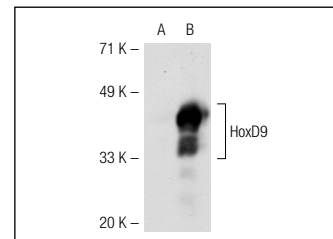
## STORAGE

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

## DATA



HoxD9 (H-342): sc-8320. Western blot analysis of HoxD9 expression in non-transfected 293T: sc-117752 (A), mouse HoxD9 transfected 293T: sc-126973 (B) and HeLa (C) whole cell lysates.



HoxD9 (H-342): sc-8320. Western blot analysis of HoxD9 expression in non-transfected: sc-117752 (A) and human HoxD9 transfected: sc-115615 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Perrais, M., et al. 2001. Aberrant expression of human mucin gene MUC5B in gastric carcinoma and cancer cells. Identification and regulation of a distal promoter. J. Biol. Chem. 276: 15386-15396.
2. Gattenlohner, S., et al. 2003. NCAM(CD56) and RUNX1(AML1) are up-regulated in human ischemic cardiomyopathy and a rat model of chronic cardiac ischemia. Am. J. Pathol. 163: 1081-1090.
3. Okada, Y., et al. 2003. Homeodomain proteins Meis1 and PBXs regulate the lineage-specific transcription of the platelet factor 4 gene. Blood 101: 4748-4756.
4. D'Antò, V., et al. 2006. The Hox genes are expressed, *in vivo*, in human tooth germs: *in vitro* cAMP exposure of dental pulp cells results in parallel Hox network activation and neuronal differentiation. J. Cell. Biochem. 97: 836-848.

## 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.

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Try **HoxD9 (H-2): sc-137134** or **HoxD9 (B-9): sc-365717**, our highly recommended monoclonal alternatives to HoxD9 (H-342).