HoxD1 (H-6): sc-365853

**BACKGROUND**

The Hox (homeobox) genes play an important role in the development and design of anterior-posterior body axes in animals. Although Hox proteins can bind to DNA as monomers, dimerization with PBX homeoproteins can significantly increase the DNA binding activity of these transcription factors. The HoxD9 gene is involved in the development and patterning of the forelimb and axial skeleton. Transcriptional activation of HoxD9 has been shown to be enhanced by HMG1 (high mobility group protein 1) and antagonized by HoxD8, suggesting that Hox protein function depends on both DNA-protein and protein-protein interactions. The Hox genes are known to regulate a number of cell adhesion molecules (CAMs), with HoxD9 specifically increasing levels of L-CAM transcripts. In presomitic mesoderm, HoxD1 displays dynamic stripes of expression. In the three stages of diencephalon development, HoxD1 is strongly expressed in the first two stages and downregulated in the third stage.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: HOXD1 (human) mapping to 2q31.1; Hoxd1 (mouse) mapping to 2 C3.

**SOURCE**

HoxD1 (H-6) is a mouse monoclonal antibody raised against amino acids 1-180 mapping at the N-terminus of HoxD1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG, 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-365853 X, 200 µg/0.1 ml.

HoxD1 (H-6) is available conjugated to agarose (sc-365853 AC), 500 µg/0.25 ml agarose in 1 ml for IP; to HRP (sc-365853 HRP), 200 µg/ml, for WB, (HQP) and ELISA; to either phycoerythrin (sc-365853 PE), fluorescein (sc-365853 FITC), Alexa Fluor® 488 (sc-365853 AF488), Alexa Fluor® 546 (sc-365853 AF546), Alexa Fluor® 594 (sc-365853 AF594) or Alexa Fluor® 647 (sc-365853 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365853 AF680) or Alexa Fluor® 790 (sc-365853 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

HoxD1 (H-6) is recommended for detection of HoxD1 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 HoxD1 siRNA (h): sc-38969, HoxD1 siRNA (m): sc-38967, HoxD1 shRNA Plasmid (h): sc-38967-SH, HoxD1 shRNA Plasmid (m): sc-38967-SH, HoxD1 shRNA (h) Lentiviral Particles: sc-3896-V and HoxD1 shRNA (m) Lentiviral Particles: sc-38967-V.

HoxD1 (H-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HoxD1: 41 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243, F9 cell lysate: sc-2245 or A-10 cell lysate: sc-3806.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG 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).

## DATA

![HoxD1 (H-6) Western blot analysis of HoxD1 expression in 3T3-L1 (A), F9 (B), Solli (C) and A-10 (D) whole cell lysates.](data:image/png;base64,iVBORw0KGgoAAAANSUhEUgAABWAAAAACAYAAAAEjS0iAAAgAElEQVR42mOY3Q5wCQ2fzHlWzQAAAABJRU5ErkJggg==)

**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.