

HoxD8 (E-11): sc-515357

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. HoxD8 (homeobox D8), also known as HOX4E, is a 290 amino acid protein that localizes to the nucleus and contains one homeobox DNA-binding domain. One of several members of the homeobox superfamily, HoxD8 functions as a sequence-specific transcription factor that is important for the correct positioning of developing limb buds on the anterior-posterior axis.

REFERENCES

1. Scott, M.P. 1992. Vertebrate homeobox gene nomenclature. *Cell* 71: 551-553.
2. Redline, R.W., et al. 1992. Human Hox4E: a gene strongly expressed in the adult male and female urogenital tracts. *Genomics* 13: 425-430.
3. Rosen, D.R. and Brown, R.H. 1993. Dinucleotide repeat polymorphism in the Hox4E locus. *Hum. Mol. Genet.* 2: 617.
4. Zákány, J. and Duboule, D. 1999. Hox genes and the making of sphincters. *Nature* 401: 761-762.
5. Goodman, F.R. 2002. Limb malformations and the human Hox genes. *Am. J. Med. Genet.* 112: 256-265.

CHROMOSOMAL LOCATION

Genetic locus: HOXD8 (human) mapping to 2q31.1; Hoxd8 (mouse) mapping to 2 C3.

SOURCE

HoxD8 (E-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 138-152 within an internal region of HoxD8 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HoxD8 (E-11) is available conjugated to agarose (sc-515357 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515357 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515357 PE), fluorescein (sc-515357 FITC), Alexa Fluor® 488 (sc-515357 AF488), Alexa Fluor® 546 (sc-515357 AF546), Alexa Fluor® 594 (sc-515357 AF594) or Alexa Fluor® 647 (sc-515357 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515357 AF680) or Alexa Fluor® 790 (sc-515357 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515357 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

HoxD8 (E-11) is recommended for detection of HoxD8 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 HoxD8 siRNA (h): sc-94725, HoxD8 siRNA (m): sc-146072, HoxD8 shRNA Plasmid (h): sc-94725-SH, HoxD8 shRNA Plasmid (m): sc-146072-SH, HoxD8 shRNA (h) Lentiviral Particles: sc-94725-V and HoxD8 shRNA (m) Lentiviral Particles: sc-146072-V.

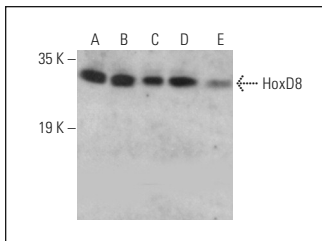
Molecular Weight of HoxD8: 32 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HoxD8 (m): 293T Lysate: sc-178762 or MES-SA/Dx5 cell lysate: sc-2284.

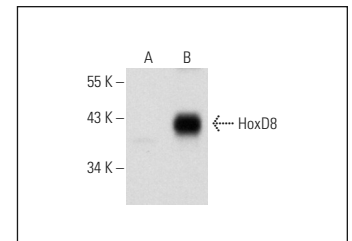
RECOMMENDED SUPPORT REAGENTS

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



HoxD8 (E-11): sc-515357. Western blot analysis of HoxD8 expression in MES-SA/Dx5 (A), Hep G2 (B), U-87 MG (C), HT-1080 (D) and T98G (E) whole cell lysates.



HoxD8 (E-11): sc-515357. Western blot analysis of HoxD8 expression in non-transfected: sc-117752 (A) and mouse HoxD8 transfected: sc-178762 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Chen, L., et al. 2017. Transcriptomes of major renal collecting duct cell types in mouse identified by single-cell RNA-seq. *Proc. Natl. Acad. Sci. USA* 114: E9989-E9998.

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.