SANTA CRUZ BIOTECHNOLOGY, INC.

HoxD8 (3G8): sc-517116

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.
6. Kosaki, K., et al. 2002. Complete mutation analysis panel of the 39 human HOX genes. Teratology 65: 50-62.
7. Yekta, S., et al. 2004. MicroRNA-directed cleavage of HOXB8 mRNA. Science 304: 594-596.
8. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 142985. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

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

SOURCE

HoxD8 (3G8) is a mouse monoclonal antibody raised against amino acids 126-190 representing partial length HoxD8 of human origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

HoxD8 (3G8) is recommended for detection of HoxD8 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)] 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.

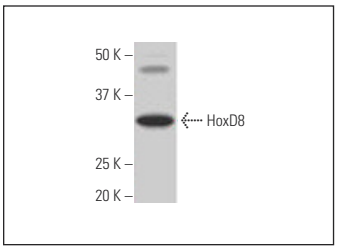
Molecular Weight of HoxD8: 32 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

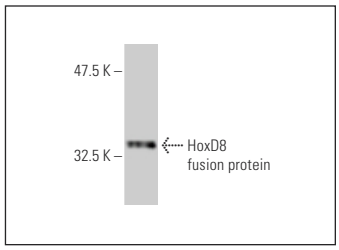
RECOMMENDED SUPPORT REAGENTS

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, TBS Blotto A Blocking Reagent: sc-2333 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



HoxD8 (3G8): sc-517116. Western blot analysis of HoxD8 expression in Hep G2 whole cell lysate.



HoxD8 (3G8): sc-517116. Western blot analysis of human recombinant HoxD8 fusion protein.

RESEARCH USE

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

PROTOCOLS

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