SANTA CRUZ BIOTECHNOLOGY, INC.

ENX-2 (m): 293T Lysate: sc-125300

BACKGROUND

In *Drosophila*, the Polycomb (PcG) gene family encodes chromatin proteins that are required for the repression of homeotic loci in embryonic development. PcG proteins work in conjunction with the trithorax-group (trxG) proteins, which activate homeobox gene expression during embryonic development. ENX-1, a mammalian homolog of the *Drosophila* gene enhancer of zeste, is a PcG protein that is ubiquitously expressed during early embryogenesis and becomes restricted to the central and peripheral nervous systems and sites of fetal hematopoiesis during later development. In the adult, ENX-1 is restricted to specific sites, including spleen, testis and placenta. ENX-2 is another mammalian homolog of the *Drosophila* gene enhancer of zeste and contains one SET domain. The gene for human ENX-2 maps to chromosome 17q21.2. ENX-2 expression is ubiquitous in adult and fetal tissue, where it may aid in maintaining heterochromatin stability.

REFERENCES

1. Goebl, M.G. 1991. The Bmi-1 and Mel-18 gene products define a new family of DNA-binding proteins involved in cell proliferation and tumorigenesis. Cell 66: 623.
2. Hobert, O., et al. 1996. Isolation and developmental expression analysis of ENX-1, a novel mouse polycomb group gene. Mech. Dev. 55: 171-184.
3. Abel, K.J., et al. 1996. Characterization of EZH1, a human homolog of *Drosophila* enhancer of zeste near BRCA1. Genomics 37: 161-171.
4. Laible, G., et al. 1997. Mammalian homologues of the Polycomb-group gene enhancer of zeste mediate gene silencing in *Drosophila* heterochromatin and at *S. cerevisiae* telomeres. EMBO J. 16: 3219-3232.
5. van Lohuizen, M., et al. 1998. Interaction of mouse polycomb-group (PcG) proteins ENX-1 and ENX-2 with EED: indication for separate PcG complexes. Mol. Cell. Biol. 18: 3572-3579.
6. Sewalt, R.G., et al. 1998. Characterization of interactions between the mammalian polycomb-group proteins ENX-1/EZH2 and EED suggests the existence of different mammalian polycomb-group protein complexes. Mol. Cell. Biol. 18: 3586-3595.
7. Fukuyama, T., et al. 2000. Proliferative involvement of ENX-1, a putative human polycomb group gene, in haematopoietic cells. Br. J. Haematol. 108: 842-847.

CHROMOSOMAL LOCATION

Genetic locus: Ezh1 (mouse) mapping to 11 D.

PRODUCT

ENX-2 (m): 293T Lysate represents a lysate of mouse ENX-2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

ENX-2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive ENX-2 antibodies. Recommended use: 10-20 µl per lane.

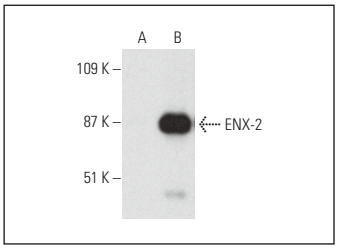
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

ENX-2 (H-4): sc-515817 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse ENX-2 expression in ENX-2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

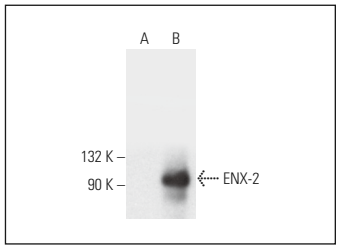
RECOMMENDED SUPPORT REAGENTS

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.

DATA



ENX-2 (H-4): sc-515817. Western blot analysis of ENX-2 expression in non-transfected: sc-117752 (**A**) and mouse ENX-2 transfected: sc-125300 (**B**) 293T whole cell lysates.



ENX-2 (C-8): sc-398767. Western blot analysis of ENX-2 expression in non-transfected: sc-117752 (**A**) and mouse ENX-2 transfected: sc-125300 (**B**) 293T whole cell lysates.

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.