

ENX-2 (C-8): sc-398767



The Power to Question

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

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- Hobert, O., et al. 1996. Isolation and developmental expression analysis of ENX-1, a novel mouse Polycomb group gene. *Mech. Dev.* 55: 171-184.
- Abel, K.J., et al. 1996. Characterization of EZH1, a human homolog of *Drosophila* enhancer of zeste near BRCA1. *Genomics* 37: 161-171.
- 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.
- van Lohuizen, M., et al. 1998. Interaction of mouse Polycomb-group (Pc-G) proteins Enx1 and Enx2 with Eed: indication for separate Pc-G complexes. *Mol. Cell. Biol.* 18: 3572-3579.
- 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.
- 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 (human) mapping to 17q21.2; Ezh1 (mouse) mapping to 11 D.

SOURCE

ENX-2 (C-8) is a mouse monoclonal antibody raised against amino acids 164-260 mapping within an internal region of ENX-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ 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-398767 X, 200 µg/0.1 ml.

APPLICATIONS

ENX-2 (C-8) is recommended for detection of ENX-2 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 ENX-2 siRNA (h): sc-38187, ENX-2 siRNA (m): sc-38188, ENX-2 shRNA Plasmid (h): sc-38187-SH, ENX-2 shRNA Plasmid (m): sc-38188-SH, ENX-2 shRNA (h) Lentiviral Particles: sc-38187-V and ENX-2 shRNA (m) Lentiviral Particles: sc-38188-V.

ENX-2 (C-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

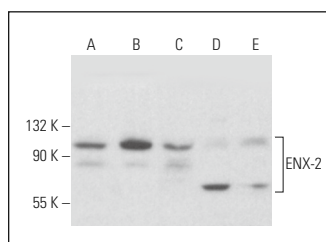
Molecular Weight of ENX-2 isoforms 1/2/3/4/5: 85/86/81/77/69 kDa.

Positive Controls: ENX-2 (m): 293T Lysate: sc-125300, RAW 264.7 whole cell lysate: sc-2211 or WEHI-231 whole cell lysate: sc-2213.

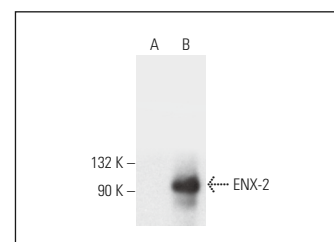
RECOMMENDED SUPPORT REAGENTS

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



ENX-2 (C-8): sc-398767. Western blot analysis of ENX-2 expression in RAW 264.7 (A), WEHI-231 (B), M1 (C), Daudi (D) and THP-1 (E) 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.

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.