SANTA CRUZ BIOTECHNOLOGY, INC.

ENX-2 (H-4): sc-515817

SANTA CRUZ BIOTECHNOLOGY

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.

CHROMOSOMAL LOCATION

Genetic locus: EZH1 (human) mapping to 17q21.2; Ezh1 (mouse) mapping to 11 D.

SOURCE

ENX-2 (H-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 60-79 near the N-terminus of ENX-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ENX-2 (H-4) is available conjugated to agarose (sc-515817 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515817 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515817 PE), fluorescein (sc-515817 FITC), Alexa Fluor® 488 (sc-515817 AF488), Alexa Fluor® 546 (sc-515817 AF546), Alexa Fluor® 594 (sc-515817 AF594) or Alexa Fluor® 647 (sc-515817 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515817 AF680) or Alexa Fluor® 790 (sc-515817 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ENX-2 (H-4) 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.

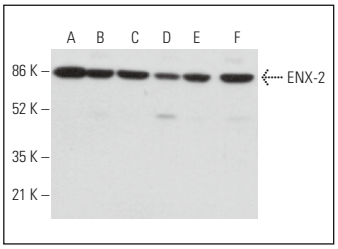
Molecular Weight of ENX-2 isoforms 1/2/3/4/5: 85/86/81/77/69 kDa.

Positive Controls: HL-60 nuclear extract: sc-2147, Hep G2 nuclear extract: sc-364819 or Daudi cell lysate: sc-2415.

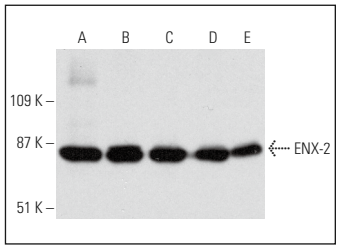
RECOMMENDED SUPPORT REAGENTS

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 (H-4): sc-515817. Western blot analysis of ENX-2 expression in Hep G2 nuclear extract (**A**) and RAW 264.7 (**B**), U-698-M (**C**), Sol8 (**D**), Daudi (**E**) and F9 (**F**) whole cell lysates.



ENX-2 (H-4): sc-515817. Western blot analysis of ENX-2 expression in I-11.15 whole cell lysate (**A**), Hep G2 (**B**), MOLT-4 (**C**) and HL-60 (**D**) nuclear extracts and human testis tissue extract (**E**).

SELECT PRODUCT CITATIONS

1. Hervás-Corpión, I., et al. 2018. Early alteration of epigenetic-related transcription in Huntington's disease mouse models. Sci. Rep. 8: 9925.
2. Ma, L., et al. 2019. Overcoming EZH2 inhibitor resistance by taxane in PTEN-mutated cancer. Theranostics 9: 5020-5034.
3. Zhao, Y., et al. 2019. EZH2 cooperates with gain-of-function p53 mutants to promote cancer growth and metastasis. EMBO J. 38: e99599.
4. Kushwaha, A.C., et al. 2020. Epigenetic regulation of Bmi1 by ubiquitination and proteasomal degradation inhibit Bcl-2 in acute myeloid leukemia. ACS Appl. Mater. Interfaces 12: 25633-25644.

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.

PROTOCOLS

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