SANTA CRUZ BIOTECHNOLOGY, INC.

E(z) (d-300): sc-98265

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

In *Drosophila melanogaster*, segment identity is determined by specific expression of homeotic genes (Hox). The Hox expression pattern is first initiated by gap and pair-rule genes and subsequently maintained by genes of the Polycomb-group (Pc-G) and the trithorax-group (trx-G). E(z), or enhancer of zeste, is a *Drosophila* Polycomb-group transcriptional repressor and one of the founding members of the family of SET-domain-containing proteins. Several SET-domain proteins possess intrinsic histone methyltransferase (HMT) activity. E(z) binds directly to ESC (extra sex combs), another PcG protein. It is present in *Drosophila* early embryos with ESC in a complex that includes ESC and is recruited to Polycomb response elements.

REFERENCES

1. Lopez, A., et al. 2001. Corto genetically interacts with Pc-G and trx-G genes and maintains the anterior boundary of ultrabithorax expression in *Drosophila* larvae. Mol. Genet. Genomics 266: 572-583.
2. O'Connell, S., et al. 2001. Polycomblike PHD fingers mediate conserved interaction with enhancer of zeste protein. J. Biol. Chem. 276: 43065-43073.
3. Kuzmichev, A., et al. 2002. Histone methyltransferase activity associated with a human multiprotein complex containing the enhancer of zeste protein. Genes Dev. 16: 2893-2905.
4. Wang, L., et al. 2002. *Drosophila* enhancer of zeste protein interacts with dSAP18. Gene 285: 119-125.
5. Czermin, B., et al. 2002. *Drosophila* enhancer of zeste/ESC complexes have a histone H3 methyltransferase activity that marks chromosomal polycomb sites. Cell 111: 185-196.

SOURCE

E(z) (d-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of E(z) of *Drosophila melanogaster* origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of 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

E(z) (d-300) is recommended for detection of E(z) of *Drosophila melanogaster* 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)], 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).

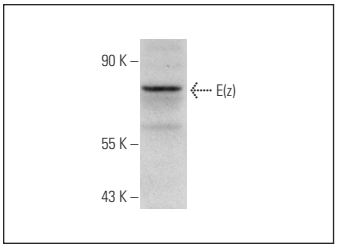
Molecular Weight of E(z): 87 kDa.

Positive Controls: Schneider's *Drosophila* line 2 whole cell lysate: sc-364794.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), 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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



E(z) (d-300): sc-98265. Western blot analysis of E(z) expression in Schneider's *Drosophila* Line 2 whole cell lysate.

RESEARCH USE

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

PROTOCOLS

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