

CBX8 (m): 293T Lysate: sc-125631

BACKGROUND

Polycomb group (PcG) proteins form multiprotein complexes and play a role in gene silencing and Hox gene regulation by altering chromatin structure during transcription. CBX4 (chromobox homolog 4) and CBX8 (chromobox homolog 8), also known as PC2 or NBP16 and PC3 or RC1, respectively, are PcG proteins that show structural similarity to M33 and, like M33, bind the PcG protein RING1 through a conserved c-box motif located in the C-terminus of RING1. However, CBX8 has only been shown to bind RING1 *in vivo* with covalently modified forms of RING1. CBX8 also interacts with the carboxy-terminus of AF9, a transcriptional activator implicated in the development of acute leukemias. CBX8 acts as a long range transcriptional silencer when targeted to a reporter gene by a heterologous DNA-binding domain. The human MPc3 gene maps to chromosome 17q25.3 and encodes a 389 amino acid protein.

REFERENCES

1. Garcia, E., et al. 1999. RYBP, a new repressor protein that interacts with components of the mammalian Polycomb complex, and with the transcription factor YY1. *EMBO J.* 18: 3404-318.
2. Bardos, J.I., et al. 2000. HPC3 is a new human polycomb orthologue that interacts and associates with RING1 and Bmi-1 and has transcriptional repression properties. *J. Biol. Chem.* 275: 28785-28792.
3. Bel-Vialar, S., et al. 2000. Altered retinoic acid sensitivity and temporal expression of Hox genes in polycomb-M33-deficient mice. *Dev. Biol.* 224: 238-249.
4. Hemenway, C.S., et al. 2001. The polycomb protein MPc3 interacts with AF9, an MLL fusion partner in t(9;11)(p22;q23) acute leukemias. *Oncogene* 20: 3798-3805.
5. LocusLink Report (LocusID: 57332). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: Cbx8 (mouse) mapping to 11 E2.

PRODUCT

CBX8 (m): 293T Lysate represents a lysate of mouse CBX8 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

CBX8 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive CBX8 antibodies. Recommended use: 10-20 µl per lane.

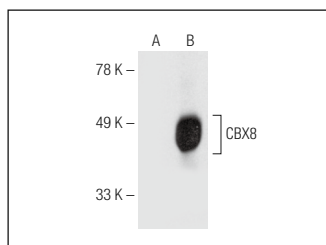
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CBX8 (C-3): sc-374332 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse CBX8 expression in CBX8 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



CBX8 (C-3): sc-374332. Western blot analysis of CBX8 expression in non-transfected: sc-117752 (A) and mouse CBX8 transfected: sc-125631 (B) 293T whole cell lysates.

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.

PROTOCOLS

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