SANTA CRUZ BIOTECHNOLOGY, INC.

CBX6 (P-13): sc-86355

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The Power to Question

BACKGROUND

Polycomb group (PcG) proteins form multiprotein complexes that regulate expression patterns of developmental and cell proliferation genes. CBX6 (chromobox protein homolog 6) is a 412 amino acid protein that is a component of the chromatin-associated PcG complex. Through interaction with PcG, CBX6 modifies chromatin and maintains the transcriptionally repressive state of genes. Members of the chromobox domain protein family are characterized by the presence of a 37 amino acid chromobox (CHRromatin Organization MOdifier) domain. This domain plays a mechanistic role in targeting chromodomain proteins to specific regions of the nucleus.

REFERENCES

1. Pearce, J.J., et al. 1992. The mouse has a polycomb-like chromobox gene. Development 114: 921-929.
2. Yamaguchi, K., et al. 1998. Chicken chromobox proteins: cDNA cloning of CHCB1, -2, -3 and their relation to W-heterochromatin. Exp. Cell Res. 242: 303-314.
3. Shao, Z., et al. 1999. Stabilization of chromatin structure by PRC1, a polycomb complex. Cell 98: 37-46.
4. Muller, J., et al. 2002. Histone methyltransferase activity of a *Drosophila* Polycomb group repressor complex. Cell 111: 197-208.
5. Bernstein, E., et al. 2006. Mouse polycomb proteins bind differentially to methylated Histone H3 and RNA and are enriched in facultative heterochromatin. Mol. Cell. Biol. 26: 2560-2569.
6. Li, B., et al. 2007. Polycomb protein CBX4 promotes SUMO modification of *de novo* DNA methyltransferase Dnmt3a. Biochem. J. 405: 369-378.
7. Scott, C.L., et al. 2007. Role of the chromobox protein CBX7 in lymphomagenesis. Proc. Natl. Acad. Sci. USA 104: 5389-5394.

CHROMOSOMAL LOCATION

Genetic locus: CBX6 (human) mapping to 22q13.1; Cbx6 (mouse) mapping to 15 E1.

SOURCE

CBX6 (P-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of CBX6 of human origin.

PRODUCT

Each vial contains 100 µg IgG 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-86355 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-86355 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

CBX6 (P-13) is recommended for detection of CBX6 of mouse, rat and human 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).

CBX6 (P-13) is also recommended for detection of CBX6 in additional species, including canine and bovine.

Suitable for use as control antibody for CBX6 siRNA (h): sc-72815, CBX6 siRNA (m): sc-142038, CBX6 shRNA Plasmid (h): sc-72815-SH, CBX6 shRNA Plasmid (m): sc-142038-SH, CBX6 shRNA (h) Lentiviral Particles: sc-72815-V and CBX6 shRNA (m) Lentiviral Particles: sc-142038-V.

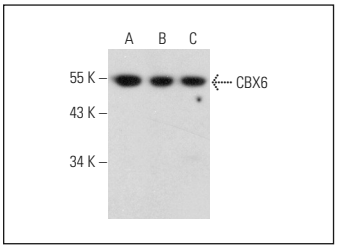
CBX6 (P-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of CBX6: 44 kDa.

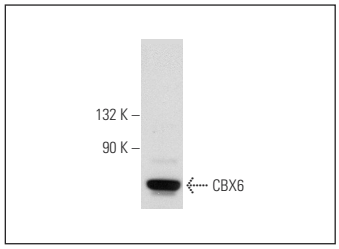
Molecular Weight (observed) of CBX6: 55 kDa.

Positive Controls: NIH/3T3 nuclear extract: sc-2138, Jurkat nuclear extract: sc-2132 or HeLa whole cell lysate: sc-2200.

DATA



CBX6 (P-13): sc-86355. Western blot analysis of CBX6 expression in Jurkat (**A**), NIH/3T3 (**B**) and 3611-RF (**C**) nuclear extracts.



CBX6 (P-13): sc-86355. Western blot analysis of CBX6 expression in HeLa 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.

MONOS Satisfaction Guaranteed

Try **CBX6 (H-1): sc-393040**, our highly recommended monoclonal alternative to CBX6 (P-13).