

# CBX6 (E-16): sc-86354

## 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

- Pearce, J.J., et al. 1992. The mouse has a polycomb-like chromobox gene. *Development* 114: 921-929.
- 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.
- Shao, Z., et al. 1999. Stabilization of chromatin structure by PRC1, a polycomb complex. *Cell* 98: 37-46.
- Müller, J., et al. 2002. Histone methyltransferase activity of a *Drosophila* Polycomb group repressor complex. *Cell* 111: 197-208.
- 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.
- Li, B., et al. 2007. Polycomb protein CBX4 promotes SUMO modification of *de novo* DNA methyltransferase Dnmt3a. *Biochem. J.* 405: 369-378.
- 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 (E-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus 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.

Blocking peptide available for competition studies, sc-86354 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-86354 X, 100 µg/0.1 ml.

## RESEARCH USE

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

## APPLICATIONS

CBX6 (E-16) 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 (E-16) is also recommended for detection of CBX6 in additional species, including canine, bovine and avian.

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 (E-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of CBX6: 44 kDa.

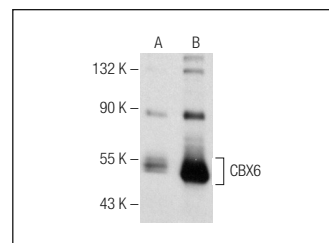
Molecular Weight (observed) of CBX6: 55 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, CBX6 (m): 293T Lysate: sc-119053 or NIH/3T3 nuclear extract: sc-2138.

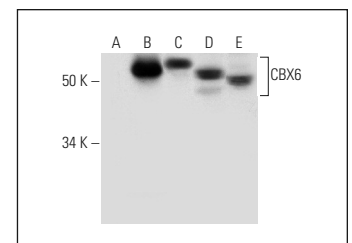
## RECOMMENDED SECONDARY REAGENTS

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



CBX6 (E-16): sc-86354. Western blot analysis of CBX6 expression in non-transfected: sc-117752 (A) and mouse CBX6 transfected: sc-119053 (B) 293T whole cell lysates.



CBX6 (E-16): sc-86354. Western blot analysis of CBX6 expression in non-transfected: sc-117752 (A) and mouse CBX6 transfected: sc-119053 (B) 293T whole cell lysates and Jurkat (C), NIH/3T3 (D) and 3611-RF (E) nuclear extracts.

## STORAGE

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