

# CBX8 (A-20): sc-23591

## 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

- 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: 3404-3418.
- LocusLink Report (LocusID: 57332). <http://www.ncbi.nlm.nih.gov/LocusLink/>

## CHROMOSOMAL LOCATION

Genetic locus: CBX8 (human) mapping to 17q25.3; Cbx8 (mouse) mapping to 11 E2.

## SOURCE

CBX8 (A-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CBX8 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-23591 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CBX8 (A-20) is recommended for detection of CBX8 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). CBX8 (A-20) is also recommended for detection of CBX8 in additional species, including equine and bovine.

Suitable for use as control antibody for CBX8 siRNA (h): sc-38195, CBX8 siRNA (m): sc-38196, CBX8 shRNA Plasmid (h): sc-38195-SH, CBX8 shRNA Plasmid (m): sc-38196-SH, CBX8 shRNA (h) Lentiviral Particles: sc-38195-V and CBX8 shRNA (m) Lentiviral Particles: sc-38196-V.

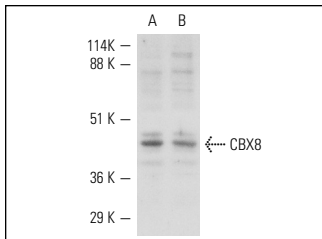
Molecular Weight of CBX8: 39 kDa.

Positive Controls: CBX8 (m): 293T Lysate: sc-125631, K-562 whole cell lysate: sc-2203 or SH-SY5Y cell lysate: sc-3812.

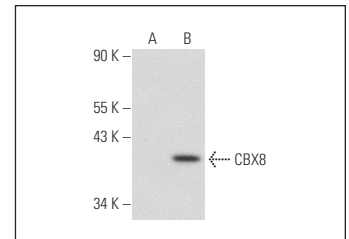
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



CBX8 (A-20): sc-23591. Western blot analysis of CBX8 expression in K-562 (A) and SH-SY5Y (B) whole cell lysates.



CBX8 (A-20): sc-23591. 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 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **CBX8 (C-3): sc-374332**, our highly recommended monoclonal alternative to CBX8 (A-20).