

CBX7 (S-14): sc-70233

BACKGROUND

CBX7 (chromobox protein homolog 7) is a 251 amino acid nuclear protein that contains one N-terminal chromo domain and one C-terminal Pc box. Highly expressed in kidney, brain, heart and skeletal muscle, with weaker expression in peripheral blood leukocytes, CBX7 functions as a component of the chromatin-associated polycomb complex (PcG) and is involved in maintaining the transcriptionally repressed state of target genes. Additionally, CBX7 modifies chromatin and is thought to extend the cellular life span of epithelial cells by repressing p14 ARF expression, while simultaneously repressing telomerase activity. Due to its ability to repress the transcription of cell-cycle related proteins, CBX7 is thought to play a role in tumorigenesis, specifically in the development of follicular lymphoma and thyroid cancer.

REFERENCES

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5. Bernstein, E., Duncan, E.M., Masui, O., Gil, J., Heard, E. and Allis, C.D. 2006. Mouse polycomb proteins bind differentially to methylated Histone H3 and RNA and are enriched in facultative heterochromatin. *Mol. Cell Biol.* 26: 2560-2569.

CHROMOSOMAL LOCATION

Genetic locus: CBX7 (human) mapping to 22q13.1.

SOURCE

CBX7 (S-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of CBX7 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-70233 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

CBX7 (S-14) is recommended for detection of CBX7 of 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).

CBX7 (S-14) is also recommended for detection of CBX7 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for CBX7 siRNA (h): sc-72816, CBX7 shRNA Plasmid (h): sc-72816-SH and CBX7 shRNA (h) Lentiviral Particles: sc-72816-V.

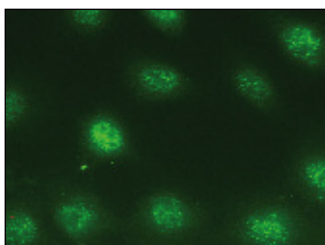
Molecular Weight of CBX7: 28 kDa.

Positive Controls: SK-N-MC nuclear extract : sc-2154.

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



CBX7 (S-14): sc-70233. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing nuclear localization.

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.