

# CBP (C-20): sc-583



The Power to Question

## BACKGROUND

Cyclic AMP-regulated gene expression frequently involves a DNA element designated the cAMP-regulated enhancer (CRE). Many transcription factors, including the protein CREB, which is activated as a result of phosphorylation by protein kinase A, bind to this element. It has been shown that protein kinase A-mediated CREB phosphorylation results in its binding to a nuclear protein designated CBP (for CREB-binding protein). These findings suggest that CBP has many of the properties expected of a CREB co-activator. Another high molecular weight transcriptional adapter protein, designated p300, is characterized by three cysteine- and histidine-rich regions, of which the most carboxy terminal region specifically binds the adenovirus E1A protein. p300 molecules lacking an intact E1A binding site bypass E1A repression even in the presence of high concentrations of E1A. Sequence analysis of CBP and p300 has revealed substantial homology, arguing that these proteins are members of a conserved family of co-activators.

## CHROMOSOMAL LOCATION

Genetic locus: CREBBP (human) mapping to 16p13.3; Crebbp (mouse) mapping to 16 A1.

## SOURCE

CBP (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of CBP 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-583 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-583 X, 100 µg/0.1 ml.

## APPLICATIONS

CBP (C-20) is recommended for detection of CBP p265 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10<sup>6</sup> cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CBP (C-20) is also recommended for detection of CBP p265 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CBP siRNA (h): sc-29244, CBP siRNA (m): sc-29243, CBP shRNA Plasmid (h): sc-29244-SH, CBP shRNA Plasmid (m): sc-29243-SH, CBP shRNA (h) Lentiviral Particles: sc-29244-V and CBP shRNA (m) Lentiviral Particles: sc-29243-V.

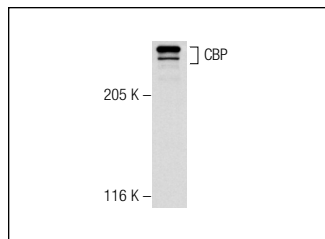
CBP (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of CBP: 265 kDa.

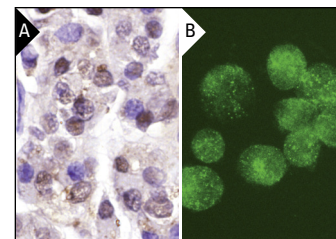
## STORAGE

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

## DATA



CBP (C-20): sc-583. Western blot analysis of CBP expression in Jurkat nuclear extract.



CBP (C-20): sc-583. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human pancreas tissue showing nuclear staining (A). Immunofluorescence staining of methanol-fixed Jurkat cells showing nuclear staining (B).

## SELECT PRODUCT CITATIONS

1. Doucas, V., et al. 1999. Modulation of CREB binding protein function by the promyelocytic (PML) oncoprotein suggests a role for nuclear bodies in hormone signaling. *Proc. Natl. Acad. Sci. USA* 96: 2627-2632.
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3. Hironaka, A., et al. 2009. 15-Deoxy- $\Delta$ 12,14-prostaglandin J2 impairs the functions of histone acetyltransferases through their insolubilization in cells. *Biochem. Biophys. Res. Commun.* 390: 290-294.
4. Oakford, P.C., et al. 2010. Transcriptional and epigenetic regulation of the GM-CSF promoter by RUNX1. *Leuk. Res.* 34: 1203-1213.
5. Flowers, S., et al. 2010. Transcriptional activation by pRB and its coordination with SWI/SNF recruitment. *Cancer Res.* 70: 8282-8287.
6. Spooren, A., et al. 2010. Cooperation of NF $\kappa$ B and CREB to induce synergistic IL-6 expression in astrocytes. *Cell. Signal.* 22: 871-881.
7. Hughes, R., et al. 2011. NF-Y is essential for expression of the proapoptotic bim gene in sympathetic neurons. *Cell Death Differ.* 18: 937-947.
8. Gordon, J.A., et al. 2011. Epigenetic regulation of early osteogenesis and mineralized tissue formation by a HOXA10-PBX1-associated complex. *Cells Tissues Organs* 194: 146-150.
9. van den Boogaard, M., et al. 2012. Genetic variation in T-box binding element functionally affects SCN5A/SCN10A enhancer. *J. Clin. Invest.* 122: 2519-2530.

## RESEARCH USE

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