SANTA CRUZ BIOTECHNOLOGY, INC.

# CBP (C-1): sc-7300

SANTA CRUZ BIOTECHNOLOGY

*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.

## REFERENCES


1. Chivra, J.C., et al. 1993. Phosphorylated CREB binds specifically to the nuclear protein CBP. Nature 365: 855-859.
2. Kwok, R.P.S., et al. 1994. Nuclear protein CBP is a coactivator for the transcription factor CREB. Nature 370: 223-229.


## CHROMOSOMAL LOCATION

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

## SOURCE

CBP (C-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2420-2442 at the C-terminus of CBP of human origin (identical to corresponding mouse sequence).

## PRODUCT

Each vial contains 200 µg $IgG_1$ kappa light chain 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-7300 X, 200 µg/0.1 ml.

CBP (C-1) is available conjugated to agarose (sc-7300 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-7300 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-7300 PE), fluorescein (sc-7300 FITC), Alexa Fluor® 488 (sc-7300 AF488), Alexa Fluor® 546 (sc-7300 AF546), Alexa Fluor® 594 (sc-7300 AF594) or Alexa Fluor® 647 (sc-7300 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-7300 AF680) or Alexa Fluor® 790 (sc-7300 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-7300 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).



## STORAGE

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

## APPLICATIONS

CBP (C-1) 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), 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CBP (C-1) is also recommended for detection of CBP p265 in additional species, including canine, bovine, porcine and avian.

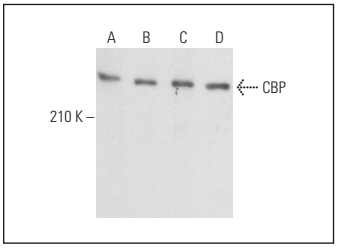
Suitable for use as control antibody for CBP siRNA (h): sc-29244, CBP siRNA (m): sc-29243, CBP shRNA Plasmid (h): sc-29244-SH, CBP shRNA Plasmid (m): sc-29243-SH, CBP shRNA (h) Lentiviral Particles: sc-29244-V and CBP shRNA (m) Lentiviral Particles: sc-29243-V.

CBP (C-1) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

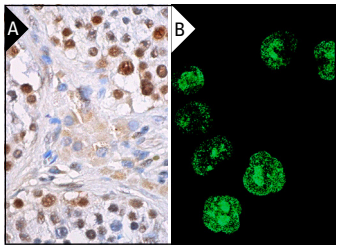
Molecular Weight of CBP: 265 kDa.

Positive Controls: NIH/3T3 nuclear extract: sc-2138, KNRK nuclear extract: sc-2141 or HeLa nuclear extract: sc-2120.

## DATA




CBP (C-1): sc-7300. Western blot analysis of CBP expression in HeLa (**A**), HEL 92.1.7 (**B**), NIH/3T3 (**C**) and WEHI-231 (**D**) nuclear extracts.




CBP (C-1): sc-7300. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tesis tissue showing nuclear staining of cells in seminiferous ducts (**A**). Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (**B**).

## SELECT PRODUCT CITATIONS


1. Bai, L. and Merchant, J.L. 2000. Transcription factor ZBP-89 cooperates with histone acetyltransferase p300 during butyrate activation $p21^{Waf1}$ transcription in human cells. J. Biol. Chem. 275: 30725-30733.
2. Gao, C., et al. 2020. Downregulating CREBBP inhibits proliferation and cell cycle progression and induces daunorubicin resistance in leukemia cells. Mol. Med. Rep. 22: 2905-2915.
3. Treptow, S., et al. 2021. 9-*cis* retinoic acid and 1.25-dihydroxyvitamin $D_3$ drive differentiation into $IgA^+$ secreting plasmablasts in human naïve B cells. Eur. J. Immunol. 51: 125-137.


## RESEARCH USE

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