SANTA CRUZ BIOTECHNOLOGY, INC.

CBP (A-22): sc-369

BACKGROUND

Cyclic AMP-regulated gene expression frequently involves a DNA element designated the cAMP-regulated enhancer (CRE). Many transcription factors bind to this element, including the protein CREB, which is activated as a result of phosphorylation by protein kinase A. 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 (A-22) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of CBP 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-369 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-369 X, 200 µg/0.1 ml.

APPLICATIONS

CBP (A-22) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CBP (A-22) is also recommended for detection of CBP p265 in additional species, including canine, bovine and porcine.

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 (A-22) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

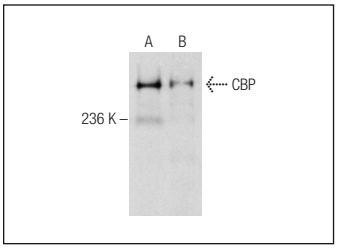
Molecular Weight of CBP: 265 kDa.

Positive Controls: KNRK nuclear extract: sc-2141.

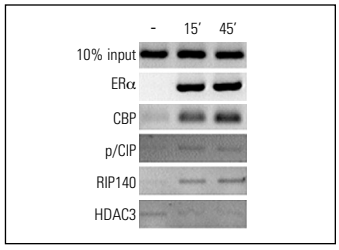
STORAGE

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

DATA



CBP (A-22): sc-369. Western blot analysis of CBP expression in KNRK (**A**) and Jurkat (**B**) nuclear extracts.



ChIP analysis of p52 promoter occupancy in murine p19 cells in response to activation by estradiol (E2). Antibodies tested include ERα (MC-20): sc-542, ERα (H-184): sc-7207, CBP (A-22): sc-369, CBP (C-1): sc-7300, p/CIP (F2): sc-5305, p/CIP (M-397): sc-9119, RIP140 (H-300): sc-8997 and HDAC3 (N-19): sc-11417. Data kindly provided by M.G. Rosenfeld and reproduced with permission from Perissi et al., Cell 2004, 116: 511-526.

SELECT PRODUCT CITATIONS

1. Kamei, Y., et al. 1996. A CBP integrator complex mediates transcriptional activation and AP-1 inhibition by nuclear receptors. Cell 85: 403-414.
2. Lappano, R., et al. 2011. The cholesterol metabolite 25-hydroxycholesterol activates estrogen receptor α-mediated signaling in cancer cells and in cardiomyocytes. PLoS ONE 6: e16631.
3. Vernimmen, D., et al. 2011. Polycomb eviction as a new distant enhancer function. Genes Dev. 25: 1583-1588.
4. Davies, J.S., et al. 2011. Selective genomic targeting by FRA-2/FOSL2 transcription factor: regulation of the Rgs4 gene is mediated by a variant activator protein 1 (AP-1) promoter sequence/CREB-binding protein (CBP) mechanism. J. Biol. Chem. 286: 15227-15239.
5. Fragale, A., et al. 2011. Critical role of IRF-8 in negative regulation of TLR3 expression by Src homology 2 domain-containing protein tyrosine phosphatase-2 activity in human myeloid dendritic cells. J. Immunol. 186: 1951-1962.
6. Brzostek-Racine, S., et al. 2011. The DNA damage response induces IFN. J. Immunol. 187: 5336-5345.
7. del Blanco, B., et al. 2012. Tcra enhancer activation by inducible transcription factors downstream of pre-TCR signaling. J. Immunol. 188: 3278-3293.
8. Ginter, T., et al. 2012. Histone deacetylase inhibitors block IFNγ-induced STAT1 phosphorylation. Cell. Signal. 24: 1453-1460.
9. Wei, W., et al. 2012. p300/CBP-associated factor selectively regulates the extinction of conditioned fear. J. Neurosci. 32: 11930-11941.

RESEARCH USE

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