

CBP (H-300): sc-20686

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 adaptor 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

- Chivra, J.C., et al. 1993. Phosphorylated CREB binds specifically to the nuclear protein CBP. *Nature* 365: 855-859.
- Kwok, R.P.S., et al. 1993. Nuclear protein CBP is a coactivator for the transcription factor CREB. *Nature* 370: 223-229.
- Arany, Z., et al. 1994. E1A-associated p300 and CREB-associated CBP belong to a conserved family of co-activators. *Cell* 77: 799-800.
- Eckner, R., et al. 1994. Molecular cloning and functional analysis of the adenovirus E1A-associated 330 kDa protein (p300) reveals a protein with properties of a transcriptional adaptor. *Genes Dev.* 8: 869-884.
- Arany, Z., et al. 1995. A family of transcriptional adaptor proteins targeted by the E1A oncoprotein. *Nature* 374: 81-84.

CHROMOSOMAL LOCATION

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

SOURCE

CBP (H-300) is a rabbit polyclonal antibody raised against amino acids 671-970 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-20686 X, 200 µg/0.1 ml.

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.

APPLICATIONS

CBP (H-300) 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 (H-300) is also recommended for detection of CBP p265 in additional species, including canine and bovine.

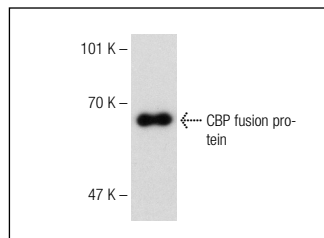
Suitable for use as control antibody for CBP siRNA (h): sc-29244, CBP siRNA (m): sc-29243, CBP shRNA Plasmid (h): sc-29244-SH, CBP shRNA Plasmid (m): sc-29243-SH, CBP shRNA (h) Lentiviral Particles: sc-29244-V and CBP shRNA (m) Lentiviral Particles: sc-29243-V.

CBP (H-300) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of CBP: 265 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HeLa nuclear extract: sc-2120 or KNRK nuclear extract: sc-2141.

DATA



CBP (H-300): sc-20686. Western blot analysis of human recombinant CBP fusion protein.

SELECT PRODUCT CITATIONS

- Dhawan, P., et al. 2005. Functional cooperation between CCAAT/enhancer-binding proteins and the vitamin D receptor in regulation of 25-hydroxy-vitamin D3 24-hydroxylase. *Mol. Cell. Biol.* 25: 472-487.
- Sanchez, M., et al. 2007. The hormonal response of estrogen receptor β is decreased by the phosphatidylinositol 3-kinase/Akt pathway via a phosphorylation-dependent release of CREB-binding protein. *J. Biol. Chem.* 282: 4830-4840.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.