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.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: EP300 (human) mapping to 22q13.2; Ep300 (mouse) mapping to 15 E1.

SOURCE
p300 (F-4) is a mouse monoclonal antibody raised against amino acids 774-1045 of p300 of human origin.

PRODUCT
Each vial contains 200 µg IgG2a 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-48343 X, 200 µg/0.1 ml.
p300 (F-4) is available conjugated to agarose (sc-48343 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-48343 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-48343 PE), fluorescein (sc-48343 FITC), Alexa Fluor® 488 (sc-48343 AF488) or Alexa Fluor® 647 (sc-48343 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

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

APPLICATIONS
p300 (F-4) is recommended for detection of p300 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:5000), 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).


p300 (F-4) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of p300: 300 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, HeLa nuclear extract: sc-2120 or MCF7 nuclear extract: sc-2149.

DATA

SELECT PRODUCT CITATIONS

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