Store at -20°C

#4771

Acetyl-CBP (Lys1535)/p300 (Lys1499) Antibody

✓ 100 µl
(10 western blots)

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not For Use In Diagnostic Procedures.

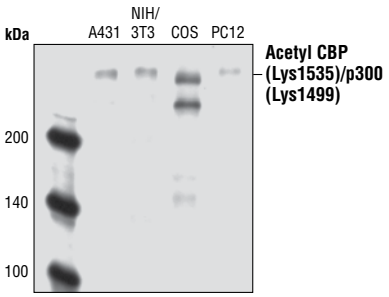
Entrez-Gene ID #1387
Swiss-Prot Acc. #Q92793

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP, ChIP Endogenous	H, M, Mk, (R)	300 kDa	Rabbit**

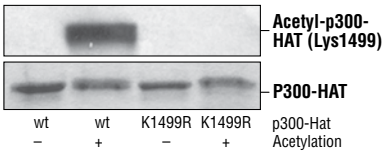
Background: CBP (CREB-binding protein) and p300 are highly conserved and functionally related transcriptional co-activators that associate with transcriptional regulators and signaling molecules, integrating multiple signal transduction pathways with the transcriptional machinery (1,2). CBP/p300 also contain histone acetyltransferase (HAT) activity, allowing them to acetylate histones and other proteins (2). Phosphorylation of p300 at Ser89 by PKC represses its transciptional acitivity, and phosphorylation at the same site by AMPK disrupts the association of p300 with nuclear receptors (3,4). Ser1834 phosphorylation of p300 by Akt disrupts its association with C/EBPβ (5). Growth factors induce phosphorylation of CBP at Ser437, which is required for CBP recruitment to the transcription complex (6). CaM kinase IV phosphorylates CBP at Ser302, which is required for CBP-dependent transcriptional activation in the CNS (7). The role of acetylation of CBP/p300 is of particular interest (2,8). Acetylation of Lys1499 of p300 has been demonstrated to enhance its HAT activity and affect a wide variety of signaling events (9).

Specificity/Sensitivity: Acetyl-CBP (Lys1535)/p300 (Lys1499) Antibody detects endogenous levels of CBP or p300 only when acetylated at lysine 1535 or lysine 1499, respectively.

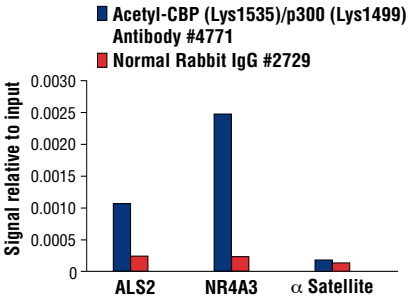
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic acetylated peptide corresponding to residues surrounding Lys1535 of human CBP. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from A431, NIH/3T3, COS and PC12 cells, using Acetyl-CBP (Lys1535)/p300 (Lys1499) Antibody.



Western blot analysis of hypo- or hyper-acetylated recombinant p300 HAT domains, either wild-type or K1499R mutant, using Acetyl-CBP (Lys1535)/p300 (Lys1499) Antibody (upper). Also shown in the corresponding coomassie stained SDS-PAGE gel (lower). (Details are described in Thompson, P.A. et al. (2004) Nat. Struct. Mol. Biol. 11, 308-315.)



◀ *Chromatin immunoprecipitations were performed with cross-linked chromatin from 4 x 10^6 293 cells treated with Forskolin #3828 (30uM) and either 20 µl of Acetyl-CBP (Lys1535)/p300 (Lys1499) Antibody or 2 µl of Normal Rabbit IgG #2729, using SimpleChIP™ Enzymatic Chromatin IP Kit (Magnetic Beads) #9003. The enriched DNA was quantified by Real-Time PCR using human ALS2 exon 1 primers, SimpleChIP™ Human NR4A3 Promoter Primers #4829, and SimpleChIP™ Human α Satellite Repeat Primers #4486. The amount of immunoprecipitated DNA in each sample is represented as signal relative to the total amount of input chromatin, which is equivalent to one.*

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:50
Chromatin IP	1:25

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

(1) Goodman, R.H. and Smolik, S. (2000) *Genes Dev.* 14, 1533–1577.

(2) Chan, H.M. and La Thangue, N.B. (2001) *J. Cell Sci.* 114, 2363–2373.

(3) Yuan, L.W. and Gambee, J.E. (2000) *J. Biol. Chem.* 275, 40946–40951.

(4) Yang, W. et al. (2001) *J. Biol. Chem.* 276, 38341–38344.

(5) Guo, S. et al. (2001) *J. Biol. Chem.* 276, 8516–8523.

(6) Zanger, K. et al. (2001) *Mol. Cell* 7, 551–558.

(7) Impey, S. et al. (2002) *Neuron* 34, 235–244.

(8) Yuan, L.W. and Giordano, A. (2002) *Oncogene* 21, 2253–2260.

(9) Thompson, P.R. et al. (2004) *Nat. Struct. Mol. Biol.* 11, 308–315.

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Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide

Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—Horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.