Revision 9

Store at -20C

#4771

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

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355) orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, W-S, IP	H M Mk	Endogenous	300	Rabbit	#Q92793, #Q09472	1387, 2033

Product Usage Information

For optimal ChIP results, use 10 µl of antibody and 10 µg of chromatin (approximately 4 x 10^6 cells) per IP. This antibody has been validated using SimpleChIP® Enzymatic Chromatin IP Kits.

Application	Dilution
Western Blotting	1:1000
Simple Western™	1:10 - 1:50
Immunoprecipitation	1:50

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.

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.

Species predicted to react based on 100% sequence homology

Rat

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.

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 transcriptional activity, 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 p300 at Lys1499 has been demonstrated to enhance its HAT activity and affect a wide variety of signaling events (9).

Background References

1. Goodman, R.H. and Smolik, S. (2000) *Genes Dev* 14, 1553-77.
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.
10. Stiehl, D.P. et al. (2007) *Cancer Res* 67, 2256-64.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting **W-S:** Simple Western™ **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **Mk:** Monkey

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