

# Lysine Acetyltransferase Antibody Sampler Kit



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1 Kit (4 x 20 microliters)

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

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
CBP (D6C5) Rabbit mAb	7389	20 µl	300 kDa	Rabbit IgG
Acetyl-CBP (Lys1535)/p300 (Lys1499) Antibody	4771	20 µl	300 kDa	Rabbit
PCAF (C14G9) Rabbit mAb	3378	20 µl	93 kDa	Rabbit IgG
GCN5L2 (C26A10) Rabbit mAb	3305	20 µl	94 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

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## Description

The Lysine Acetyltransferase Antibody Sampler Kit provides an economical means to examine several lysine acetyltransferases, including: Acetyl-CBP, CBP, GCN5L2, and PCAF. The kit contains enough primary antibody to perform two western blots per primary.

## Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

## Background

CREB-binding protein (CBP) 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). The role of acetylation of CBP/p300 is of particular interest (2,3). Acetylation of p300 at Lys1499 has been demonstrated to enhance its HAT activity and affect a wide variety of signaling events (4). p300/CBP-associated factor (PCAF), also known as lysine acetyl-transferase 2B (KAT2B) (5), and General Control of Amino Acid Synthesis Yeast Homolog Like 2 (GCN5L2) (6) are transcriptional adaptor proteins in addition to HATs. PCAF functions as the catalytic subunit of the PCAF transcriptional co-activator complex (5). GCN5L2 functions as the catalytic subunit of the STAGA and TFTC transcription coactivator complexes (6). PCAF and GCN5L2 acetylate histone H3 at Lys14 and histone H4 at Lys8, both of which contribute to gene activation by modulating chromatin structure and recruiting additional co-activator proteins that contain acetyl-lysine binding bromo-domains (7,8). PCAF also acetylates non-histone proteins including transcriptional activators (p53, E2F1, MyoD) and general transcription factors (TFIIIE $\beta$  and TFIIIF) (9-12). GCN5L2 also acetylates non-histone proteins such as transcription activators (TAT, c-Myb) (13,14), transcription co-activators (PGC1- $\alpha$ ) (15), and nuclear receptors (Steroidogenic Factor 1) (16). Acetylation of these proteins regulates their nuclear localization, protein stability, DNA binding, and co-activator association (13-16).

## Background References

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