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# PCAF Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12074a

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | Q92831 |
| **Other Accession** | Q9JHD1, NP_003875.3 |
| **Reactivity** | Human |
| **Predicted** | Mouse, Rat, Bovine, Canine, Rabbit, Chicken |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB14383 |
| **Calculated MW** | 93013 |
| **Antigen Region** | 253-283 |

## Additional Information

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| **Gene ID** | 8850 |
| **Other Names** | Histone acetyltransferase KAT2B, Histone acetyltransferase PCAF, Histone acetylase PCAF, Lysine acetyltransferase 2B, P300/CBP-associated factor, P/CAF, KAT2B, PCAF |
| **Target/Specificity** | This PCAF antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 253-283 amino acids from the N-terminal region of human PCAF. |
| **Dilution** | WB~~1:1000 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | PCAF Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | KAT2B {ECO:0000303\|PubMed:27796307, ECO:0000312\|HGNC:HGNC:8638} |
| **Function** | Functions as a histone acetyltransferase (HAT) to promote transcriptional |

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| | activation (PubMed:8945521). Has significant histone acetyltransferase activity with core histones (H3 and H4), and also with nucleosome core particles (PubMed:8945521). Has a a strong preference for acetylation of H3 at 'Lys-9' (H3K9ac) (PubMed:21131905). Also acetylates non-histone proteins, such as ACLY, MAPRE1/EB1, PLK4, RRP9/U3-55K and TBX5 (PubMed:10675335, PubMed:23001180, PubMed:23932781, PubMed:26867678, PubMed:27796307, PubMed:29174768, PubMed:9707565). Inhibits cell-cycle progression and counteracts the mitogenic activity of the adenoviral oncoprotein E1A (PubMed:8684459). Acts as a circadian transcriptional coactivator which enhances the activity of the circadian transcriptional activators: NPAS2-BMAL1 and CLOCK-BMAL1 heterodimers (PubMed:14645221). Involved in heart and limb development by mediating acetylation of TBX5, acetylation regulating nucleocytoplasmic shuttling of TBX5 (PubMed:29174768). Acts as a negative regulator of centrosome amplification by mediating acetylation of PLK4 (PubMed:27796307). Acetylates RRP9/U3-55K, a core subunit of the U3 snoRNP complex, impairing pre-rRNA processing (PubMed:26867678). Acetylates MAPRE1/EB1, promoting dynamic kinetochore-microtubule interactions in early mitosis (PubMed:23001180). Also acetylates spermidine (PubMed:27389534). |
| **Cellular Location** | Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm Note=Mainly localizes to the nucleus. Also localizes to centrosomes in late G1 and around the G1/S transition, coinciding with the onset of centriole formation. Subcellular location may vary depending upon cell differentiation state. Cytoplasmic at the very stages of keratinocyte differentiation, becomes nuclear at later differentiation stages Cytoplasmic in basal epithelial cells (undifferentiated cells) and nuclear in parabasal cells (differentiated cells) (PubMed:20940255) Localizes to sites of DNA damage (PubMed:25593309) |
| **Tissue Location** | Ubiquitously expressed but most abundant in heart and skeletal muscle. Also expressed in the skin, in keratinocytes (at protein level) (PubMed:20940255). |

## Background

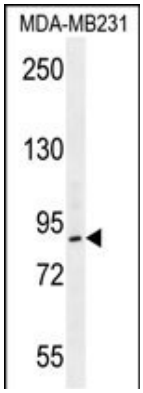
CBP and p300 are large nuclear proteins that bind to many sequence-specific factors involved in cell growth and/or differentiation, including c-jun and the adenoviral oncoprotein E1A. The protein encoded by this gene associates with p300/CBP. It has in vitro and in vivo binding activity with CBP and p300, and competes with E1A for binding sites in p300/CBP. It has histone acetyl transferase activity with core histones and nucleosome core particles, indicating that this protein plays a direct role in transcriptional regulation.

## References


Perez, R.E., et al. J. Cell. Physiol. 225(2):394-405(2010)
Mooney, S.M., et al. J. Biol. Chem. 285(40):30443-30452(2010)
Aoyama, T., et al. J. Biol. Chem. 285(39):29842-29850(2010)
Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
Shimahara, A., et al. J. Biol. Chem. 285(22):16967-16977(2010)


## Images

PCAF Antibody (N-term) (Cat. #AP12074a) western blot analysis in MDA-MB231 cell line lysates (35ug/lane).This demonstrates the PCAF antibody detected the PCAF protein (arrow).




Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.