10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PCAF Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP12074a

Specification

PCAF Antibody (N-term) Blocking peptide - Product Information

Primary Accession Q92831

PCAF Antibody (N-term) Blocking peptide - Additional Information

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

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PCAF Antibody (N-term) Blocking peptide - Protein Information

Name KAT2B {ECO:0000303|PubMed:27796307, ECO:0000312|HGNC:HGNC:8638}

Function
Functions as a histone acetyltransferase (HAT) to promote transcriptional 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:9707565, PubMed:10675335, PubMed:23001180, PubMed:27796307, PubMed:23932781, PubMed:26867678, PubMed:29174768). 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).

PCAF Antibody (N-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

PCAF Antibody (N-term) Blocking peptide - Images

PCAF Antibody (N-term) Blocking peptide - Background

CBP and p300 are large nuclear proteins that bind to manysequence-specific factors involved in cell growth and/ordifferentiation, including c-jun and the adenoviral oncoproteinE1A. The protein encoded by this gene associates with p300/CBP. Ithas in vitro and in vivo binding activity with CBP and p300, andcompetes with E1A for binding sites in p300/CBP. It has histoneacetyl transferase activity with core histones and nucleosome coreparticles, indicating that this protein plays a direct role intranscriptional regulation.

PCAF Antibody (N-term) Blocking peptide - 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)