

## Recombinant KAT2B / PCAF protein

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**Catalog No:** 81142, 81842

**Lot No:** 09918001

**Expressed In:** Baculovirus

**Quantity:** 20, 1000 µg

**Concentration:** 0.4 µg/µl

**Source:** Human

**Buffer Contents:** Recombinant PCAF protein is supplied in 25 mM HEPES-NaOH pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100, and 0.5 mM TCEP.

**Background:** p300/CBP-associated factor (PCAF), also known as K (lysine) acetyltransferase 2B (KAT2B), is a transcriptional coactivator associated with p53 that contains acetyltransferase and E3 ubiquitin ligase domains as well as a bromodomain for interaction with other proteins. The bromodomain functions as a 'reader' of epigenetic histone marks and regulates chromatin structure and gene expression by linking associated proteins to the recognized acetylated nucleosomal targets. PCAF competes with E1A for binding to p300/CBP, which associate with various sequence-specific factors involved in cell growth and/or differentiation, including c-Jun and the adenoviral oncoprotein E1A. PCAF exerts histone acetyltransferase activity in association with core histones (H3 and H4) and with nucleosome core particles, and functions to promote transcriptional activation. PCAF has also been shown to inhibit cell cycle progression and to counteract the mitogenic activity of the adenoviral oncoprotein E1A. In case of HIV-1 infection, PCAF is recruited by the viral protein TAT to regulate TAT's transactivating activity and may help induce chromatin remodeling of proviral genes.

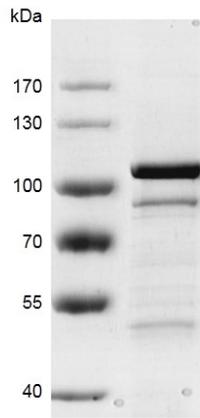
**Protein Details:** Recombinant human PCAF was expressed in a baculovirus expression system as the full length protein (accession number NP\_003875.3) with an N-terminal FLAG-Tag. The molecular weight of the protein is 94.3 kDa.

**Application Notes:** This protein is suitable for use in binding assays, inhibitor screening, and selectivity profiling.

**Assay Conditions:** 0.5 µg Histone H4 (Cat. No. 31493) was incubated with 0 µg (-), 0.5 µg (+) PCAF in a 20 µl reaction system containing 50 mM Tris-HCl pH 8.0, 0.1 mM EDTA, 50 ng/µl BSA, 1 mM TCEP and 20 µM Acetyl-CoA for 2 hours at room temperature. Half of each reaction was run on a 13% SDS-PAGE gel, and products were detected by Western blot. H4ac (pan-acetyl) antibody (Cat. No. 39243) was used to recognize acetylated histone H4.

**Storage and Guarantee:** Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.

### PCAF



### Recombinant PCAF protein gel

7.5% SDS-PAGE Coomassie staining

MW: 94.3 kDa

Purity: >80%

Histone H4	-	+	+
PCAF	+	-	+

$\alpha$ -H4ac (pan-acetyl)



### Western blot for recombinant PCAF activity

0.5  $\mu$ g Histone H4 was incubated with 0  $\mu$ g (-), 0.5  $\mu$ g (+) PCAF in a 20  $\mu$ l reaction system for 2 hours at room temperature. Half of each reaction was run on a 13% SDS-PAGE gel, and products were detected by Western blot. H4ac (pan-acetyl) antibody was used to recognize acetylated histone H4.