

PCAF

p300/CBP-Associated Factor

human, recombinant, Sf9 insect cells

Cat. No.	Amount
PR-869	5 µg

For *in vitro* use only
Quality guaranteed for 12 months
Store at -80°C

Avoid freeze / thaw cycles

Form

Liquid. Supplied in 20 mM Tris-HCl pH 8.0, 100 mM KCl, 0.2 mM EDTA, 1 mM DTT and 20% glycerol.

Activity

1-5 ng are sufficient for a gel mobility shift assay in a 20 µl reaction, 50-100 ng are sufficient for reconstituted transcription assay and 100-200 ng are sufficient for a protein-protein interaction assay or an acetylation assay.

Application

Use only for Research.
Recombinant PCAF can be used 1) for protein-protein interaction assay, 2) for *in vitro* transcription assay 3) for *in vitro* acetylation assay and 4) for cell growth assay.

Molecular Weight

91 kDa

Purity

> 95% by SDS-PAGE

Description

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. PCAF belongs to the GCN5/PCAF family of nuclear HATs. The proteins consist of N-terminal and C-terminal domains separated by a deep hydrophobic cleft. The C-terminus contains the HAT domain and a bromodomain, while the N-terminus contains a PCAF-specific domain. Numerous studies indicate that these HATs function as histone-acetylating transcriptional co-activators. Besides histones, PCAF also acetylates non-histone proteins. It has histone acetyltransferase activity with core histones and nucleosome core particles, indicating that this protein plays a direct role in transcriptional regulation.

Selected References:

- Yang (2004) The diverse superfamily of lysine acetyltransferases and their roles in leukemia and other diseases. *Nuc. Acids Res.* **32**:959.
Carrozza *et al.* (2003) The diverse functions of histone acetyltransferase complexes. *Trends Genet.* **19**:321.
Roth *et al.* (2001) Histone acetyltransferases. *Annu. Rev. Biochem.* **70**:81.
Nakatani (2001) Histone acetylases—versatile players. *Genes Cell* **6**:79.
Sternner *et al.* (2000) Acetylation of histones and transcription-related factors. *Microbiol. and Mol. Biol. Rev.* **64**:435.
Kouzarides (2000) Acetylation: a regulatory modification to rival phosphorylation? *EMBO J.* **19**:1176.