

PRODUCT INFORMATION



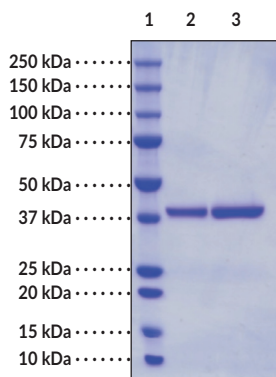
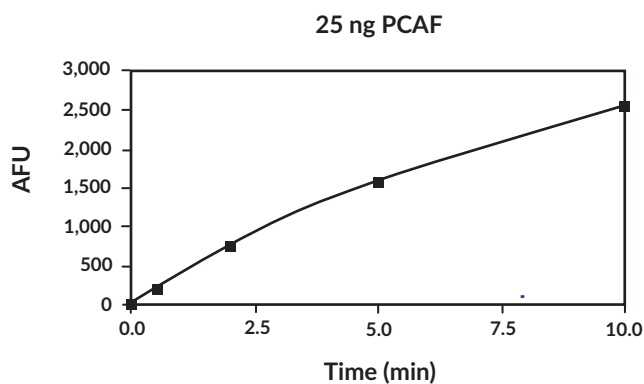
PCAF Histone Acetyltransferase (human, recombinant)

Item No. 10009115

Overview and Properties

Synonyms: p300/(CREB binding protein) Associated Factor, HAT
Source: Active recombinant GST-tagged protein purified from *E. coli*
Amino Acids: 492-656 (partial protein)
Molecular Weight: ~40 kDa
Storage: -80°C (as supplied)
Stability: ≥1 year
Purity: *batch specific* (≥80% estimated by SDS-PAGE)
Supplied in: 50 mM HEPES, pH 8, with 150 mM NaCl, 1 mM EDTA, and 20% glycerol
Protein Concentration: *batch specific* mg/ml
Specific Activity: *batch specific* μmol/min/mg (determined by production of CoASH from 15 μM AcetylCoA and 25 μM H3 peptide residues 3-23 in a fluorogenic thiol-reactive maleimide assay)

Images



Lane 1: MW Markers
Lane 2: PCAF (2 μg)
Lane 3: PCAF (4 μg)

Representative gel image shown; actual purity may vary between each batch.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 06/22/2021

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



Description

p300/(CREB binding protein) associated factor (PCAF) belongs to the GCN5/PCAF family of nuclear histone acetyltransferases (HATs).¹ Gcn5/PCAF proteins contain a ~160 residue HAT domain and a conserved bromodomain directly C-terminal to the HAT domain, which has been shown recently to be an acetyl-lysine targeting motif.^{1,2} PCAF acetylates specific lysines on the N-terminal tails of Histones H3 & H4 and on the transcriptional activators MyoD, E2F1, and p53. Recently, PCAF was also shown to acetylate PTEN on lysine residues K125 & K128 within the catalytic cleft thus inactivating the enzyme.³ In many, but not all of these cases, acetylation has been shown to enhance the DNA binding affinity of the affected protein. Although the recombinant HAT proteins will acetylate free histones, nucleosomal acetylation only occurs in the context of the in vivo HAT complex.

Cayman's PCAF preparation contains 165 amino acids from the HAT activity domain of human PCAF fused to GST at the N-terminus.⁴ Enzyme activity was determined using a fluorescent HAT assay and is comparable to that found in the literature.⁵

References

1. Marmorstein, R. *Cell. Mol. Life Sci.* **58**, 693-703 (2001).
2. Carrozza, M.J., Utley, R.T., Workman, J.L., *et al.* *TRENDS in Genetics* **19(6)**, 321-327 (2003).
3. Okumura, K., Mendoza, M., Bachoo, R.M., *et al.* *J. Biol. Chem.* **281**, 26562-26568 (2006).
4. Clements, A., Rojas, J.R., Trievel, R.C., *et al.* *EMBO J.* **18(13)**, 3521-3532 (1999).
5. Trievel, R.C., Li, F.-Y., and Marmorstein, R. *Anal. Biochem.* **287**, 319-328 (2000).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM