

## Overview

| Quantity: | $100 \mu \mathrm{~g}$ |
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| Target: | KAT2B |
| Protein Characteristics: | AA 715-829 |
| Origin: | Human |
| Source: | Escherichia coli (E. coli) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This KAT2B protein is labelled with His tag,DYKDDDDK Tag. |
| Application: | Binding Studies (Bind), Screening Assay (ScA) |

Product Details

Characteristics:
The peptide corresponding to amino acids 715-829 that contains the bromodomain sequences of PCAF (accession number NM_003884.4) was expressed in E. coli and contains an N-terminal His tag and C-terminal FLAG tag with an observed molecular weight of 19.8 kDa . It shows binding specificity for acetylated H3K9, H3K14, H3K36, H4K8, H4K16, H4K20 and TATK50.

Target Details

| Target: | KAT2B |
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| Alternative Name: | PCAF (KAT2B Products) |
| 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 ( H 3 and H 4 ) 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.

| Molecular Weight: | 19.8 kDa |
| :--- | :--- |
| Pathways: | p53 Signaling, Regulation of Carbohydrate Metabolic Process |

## Application Details

| Application Notes: | Recombinant PCAF (715-829) is suitable for use in binding assays, inhibitor screening, and <br> selectivity profiling. |
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| Restrictions: | For Research Use only |
| Handling | Avoid repeated freeze/thaw cycles and keep on ice when not in storage. |
| Handling Advice: | $-80^{\circ} \mathrm{C}$ | | Storage: |
| :--- |
| Recombinant proteins in solution are temperature sensitive and must be stored at $-80^{\circ} \mathrm{C}$ to |
| prevent degradation. |



## Activity Assay

Image 1. Recombinant PCAF (715-829) activity using AlphaScreen. PCAF (715-829) activity was assessed using an AlphaScreen® assay testing various buffer formulations. This data was generated and kindly provided courtesy of ChemPartner.


## Western Blotting

Image 2. Recombinant PCAF (715-829) protein gel. PHIP (1302-1434) protein was run on a $10 \%$ SDS-PAGE gel and stained with Coomassie blue.

