

PCAF (H-369): sc-8999

BACKGROUND

In the intact cell, DNA closely associates with histones and other nuclear proteins to form chromatin. The remodeling of chromatin is believed to be a critical component of transcriptional regulation and a major source of this remodeling is brought about by the acetylation of nucleosomal histones. Acetylation of lysine residues in the amino terminal tail domain of histone results in an allosteric change in the nucleosomal conformation and an increased accessibility to transcription factors by DNA. Conversely, the deacetylation of histones is associated with transcriptional silencing. Several mammalian proteins have been identified as nuclear histone acetylases, including GCN5, PCAF (for p300/CBP-associated factor), p300/CBP and the TFIID subunit TAF II p250. Mammalian HDAC1 (also designated HD1) and HDAC2 (also designated mammalian RPD3), both of which are related to the yeast transcriptional regulator Rpd3p, have been identified as histone deacetylases.

CHROMOSOMAL LOCATION

Genetic locus: KAT2B (human) mapping to 3p24.3, KAT2A (human) mapping to 17q21.2; Kat2b (mouse) mapping to 17 C, Kat2a (mouse) mapping to 11 D.

SOURCE

PCAF (H-369) is a rabbit polyclonal antibody raised against amino acids 464-832 of PCAF of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as TransCruz reagent for ChIP application, sc-8999 X, 200 µg/0.1 ml.

APPLICATIONS

PCAF (H-369) is recommended for detection of PCAF and GCN5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PCAF (H-369) is also recommended for detection of PCAF and GCN5 in additional species, including equine, canine, bovine, porcine and avian.

PCAF (H-369) X TransCruz antibody is recommended for ChIP assays.

Molecular Weight of PCAF: 89 kDa.

Molecular Weight of GCN5: 98 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207, K-562 whole cell lysate: sc-2203 or Y79 cell lysate: sc-2240.

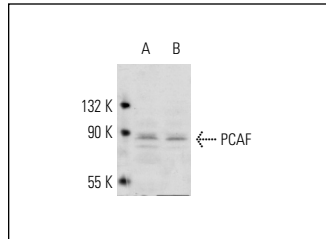
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

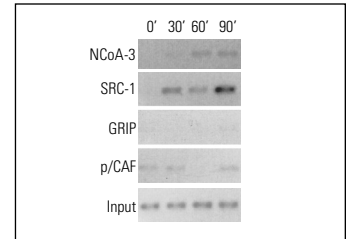
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



PCAF (H-369): sc-8999. Western blot analysis of PCAF expression in K-562 (A) and BJAB (B) whole cell lysates.



ChIP analysis of cofactor occupancy dynamics on the IL-8 promoter in 293 cells in response to IL-1 β treatment. Antibodies tested include NCoA-3 (F-2): sc-5305, NCoA-3 (M-397): sc-9119, NCoA-3 (N-17): sc-7217, NCoA-3 (C-20): sc-7216, SRC-1 (M-341): sc-8995, SRC-1 (C-20): sc-6096, SRC-1 (M-20): sc-6098, GRIP1 (M-343): sc-8996, PCAF (C-16): sc-6300 and PCAF (H-369): sc-8999. Data kindly provided by M.G. Rosenfeld and reproduced with permission from Baek et al., Cell 2002, 110: 55-67.

SELECT PRODUCT CITATIONS

- Soutoglou, E., et al. 2001. Transcription factor-dependent regulation of CBP and P/CAF histone acetyltransferase activity. EMBO J. 20: 1984-1992.
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- Hilton, T., et al. 2010. Pitx2-dependent occupancy by histone deacetylases is associated with T-box gene regulation in mammalian abdominal tissue. J. Biol. Chem. 285: 11129-11142.
- Vernimmen, D., et al. 2011. Polycomb eviction as a new distant enhancer function. Genes Dev. 25: 1583-1588.
- Jokela, T.A., et al. 2011. Cellular content of UDP-N-acetylhexosamines controls hyaluronan synthase 2 expression and correlates with O-linked N-acetylglucosamine modification of transcription factors YY1 and SP1. J. Biol. Chem. 286: 33632-33640.
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