

Anti-acetyllysine rabbit pAb

(Anti-Kac pAb)

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Cat#: PTM-105

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Species: Rabbit

0571-2883 3567

Size: 100 μ l at 0.4 mg/ml

Form: supplied in liquid form

Application	Recommend dilution	Species Reactivity	Immunogen	Swissprot ID	Molecular Weight
WB, Dot, ELISA	1:1000 for WB 1:25~500 for IP	all	acetylated BSA	/	multiple

****Species reactivity is determined by WB. Kept at -20°C after receipt.**

***** Anti-rabbit secondary antibodies must be used to detect this antibody.**

Source/Purification:

This product is produced by immunizing rabbits with acetylated BSA. Antibodies are purified by acetylated lysine agarose affinity chromatography.

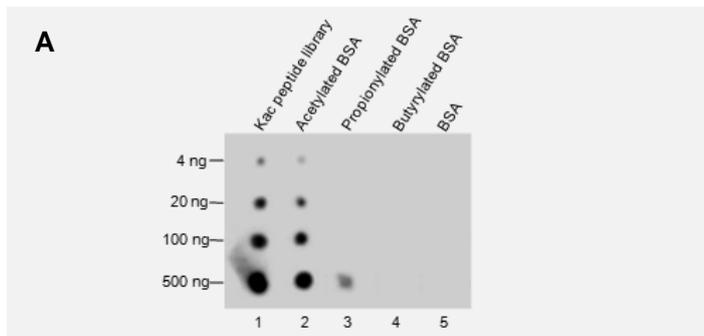
Recommended Applications:

ELISA, Dot blot, Western blot, Immunoprecipitation. Recommended antibody dilution: WB: 1:1000 IP: 1:25~1:500

NOTE: For WB, incubate membrane with diluted antibody in 5% nonfat milk, 1 x TBS, 0.1% Tween-20 for two hours at room temperature with gentle shaking. Prepare working dilution immediately before use. Use at an assay dependent concentration. Optimal dilutions/concentrations should be determined by the end user. Not yet tested in other applications

Scientific Description:

The ϵ -amino lysine acetylation of proteins is an important reversible modification controlling protein activity. The amino-terminal tails of core histones undergo lysine acetylation in multiple sites, termed as "histone code". Lysine acetylation in core histone occurs in response to various stimuli and plays vital roles in the regulation of many cellular processes including chromatin dynamics, DNA transcription, cell cycle progression, apoptosis, differentiation, and nuclear import. In most species, histone H2A is primarily acetylated at Lys5, 9, 15, and 36; H2B is primarily acetylated at Lys5, 12, 15, 16 and 20. Histone H3 is primarily acetylated at Lys4, 9, 14, 18, 23, 27, 56 and 79. Histone H4 is primarily acetylated at Lys5, 8, 12, 16, and 20. More than 20 histone acetyltransferases (HATs) and 18 histone deacetylases (HDACs) have been identified to date, while the mechanistic details of substrate selection and site specificity of these enzymes remain unclear. The regulation of histone lysine acetylation status is impaired in the pathologies of cancer and other diseases and therefore, enzymes regulating histone lysine acetylation have become promising targets for anti-cancer drugs.



No.	Peptide	No.	Peptide
lane 1	Kac library	lane 2	acetylated BSA
lane 3	propionyled BSA	lane 4	butyrylated BSA
lane 5	BSA		

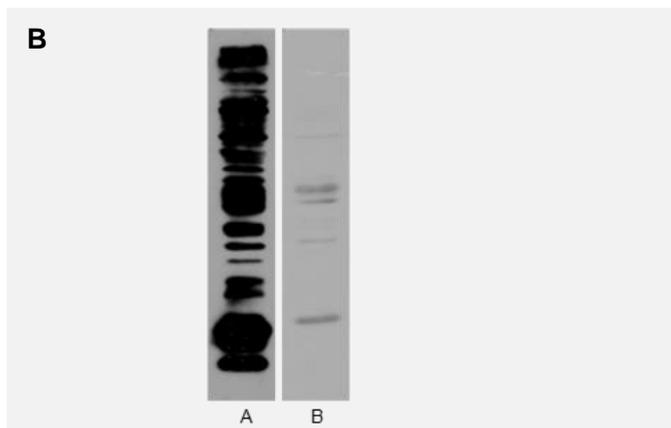
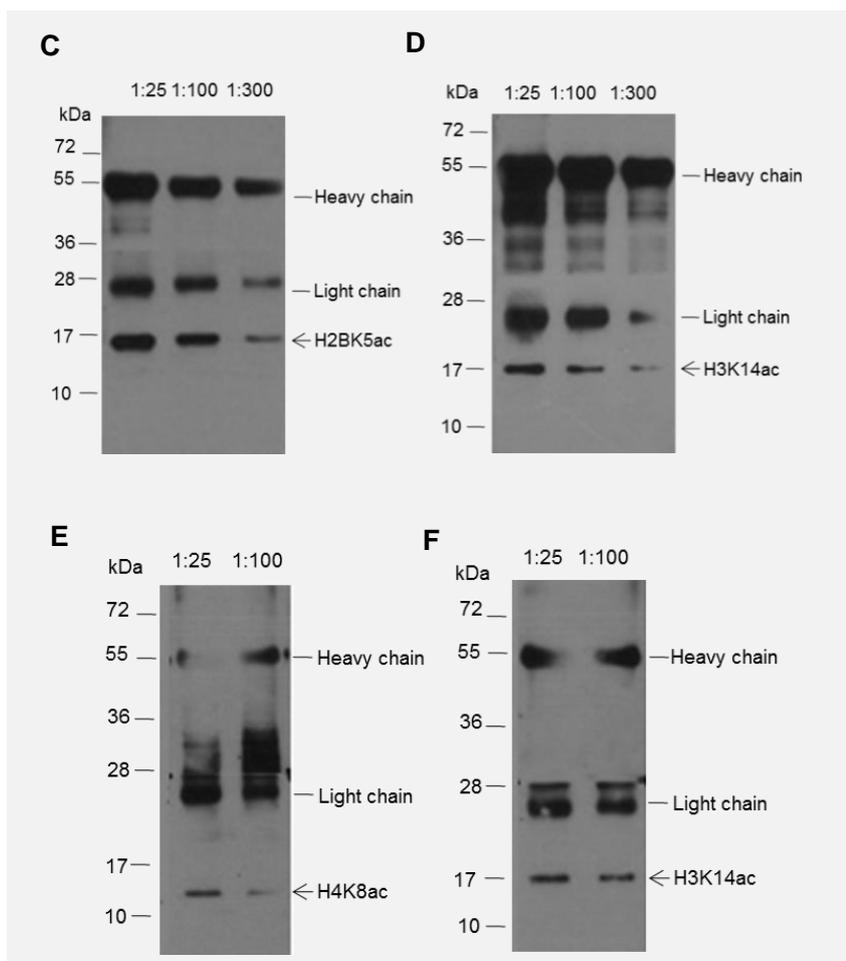


Figure A: Dot blotting analysis on indicated amount of peptides using anti-acetyllysine rabbit pAb. The list of peptides is included in the above table .

Figure B: Western blotting analysis on 30 µg of crude proteins from HeLa cells using anti-acetyllysine rabbit pAb (1:1000), with (lane 2) or without (lane 1) competition with acetylated BSA (1:1000).



0.6mg HeLa whole cell extracts with sodium butyrate treatment (30 mM, 4 hours) was subjected to Co-Immunoprecipitation (Co-IP) using Acetyllysine rabbit pAb (PTM-105) diluted at 1:25, 1:100 and 1:300 as indicated. The western blot analysis was performed using Anti-acetyl-Histone H2B (Lys5) mouse mAb (PTM-152) (**Figure C**) or Acetyl-Histone H3 (Lys14) mouse mAb(PTM-157) (**Figure D**).

1.5 mg mouse liver extracts was subjected to Co-Immunoprecipitation (Co-IP) using Acetyllysine rabbit pAb (PTM-105) diluted at 1:25 and 1:100 as indicated. The western blot analysis was performed using Anti-acetyl-Histone H4 (Lys8) mouse mAb (PTM-164) (**Figure E**) or Acetyl-Histone H3 (Lys14) mouse mAb (PTM-157) (**Figure F**).

Application Key: WB-western

ChIP-chromatin immunoprecipitation

IP-immunoprecipitation

Modification Key: ac-acetyl bu-butyryl pr-propionyl cr-crotonyl hib-2ohibutyryl bhb-3ohbutyryl

Species Cross-Reactivity Key: H-human M-mouse R-rat Mk-monkey All-all species expected

Storage & Stability:

The antibody is kept in PBS with 50% glycerol and 0.01% sodium azide. Upon receipt, please centrifuge the antibody at 12,000 x g for 20 seconds and store the antibody at -20°C. Avoid repeated freeze/thaw cycles. Stable for 12 months from date of receipt. Leave the antibody at room temperature for 2 minutes and gently mixed using pipette before usage.

