

Anti-acetyllysine mouse mAb (clone Kac-01)

(Anti-Kac mAb)

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Cat#: PTM-101

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Species: Mouse

0571-2883 3567

Size: 100 μ l at 2 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-mouse secondary antibodies must be used to detect this antibody.**

Source/Purification:

The mouse monoclonal antibody is produced by immunizing Balb/c mice with acetylated BSA. Antibodies are purified by acetyllysine-conjugated agarose from media of cultured cells.

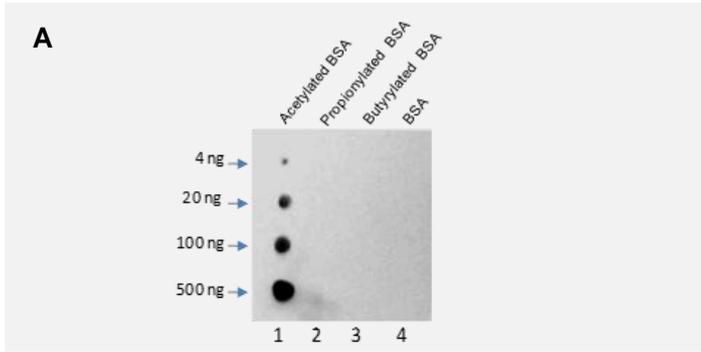
Recommended Applications:

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 post-translational ϵ -amino lysine acetylation of proteins, like phosphorylation of serine, threonine or tyrosine, is an important reversible modification controlling protein activity. The reversible lysine acetylation of histones and non-histone proteins plays a vital role in the regulation of many cellular processes including chromatin dynamics and transcription, gene silencing, cell cycle progression, apoptosis, differentiation, DNA replication, DNA repair, nuclear import, and neuronal repression. More than 20 acetyltransferases and 18 deacetylases have been identified so far, but the mechanistic details of substrate selection and site specificity of these enzymes remain unclear. The regulation of protein acetylation status is impaired in the pathologies of cancer and other diseases. HDACs have become promising targets for anti-cancer drugs.



No.	Peptide	No.	Peptide
lane 1	acetylated BSA	lane 2	propionylated BSA
lane 3	butyrylated BSA	lane 4	BSA

Figure A: Dot blotting analysis on indicated amount of peptides using anti-Kac mouse mAb. The list of peptides is included in the table on the right.

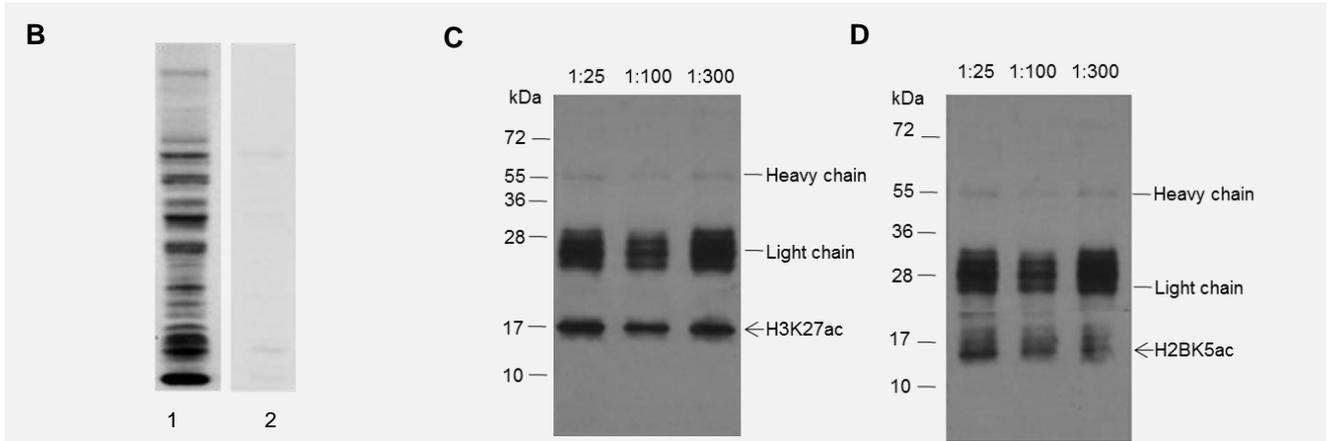
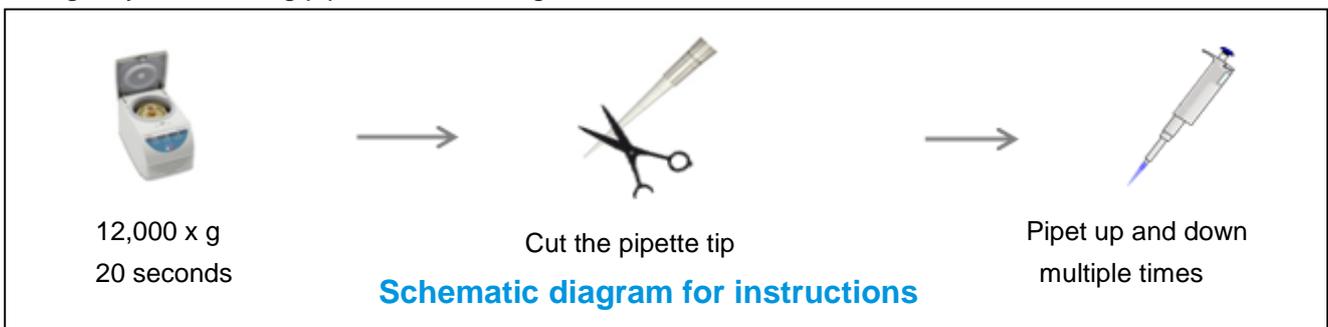


Figure B: Western blotting analysis on 30 µg of crude proteins from HeLa whole cell lysates using anti-acetyllysine mouse mAb (clone kac-01, 1: 1000), with (lane 2) or without (lane 1) competition with acetylated BSA.

0.6mg HeLa whole cell extracts with sodium butyrate treatment (30 mM, 4 hours) was subjected to Co-Immunoprecipitation (Co-IP) using Acetyllysine mouse mAb (PTM-101) diluted at 1:25, 1:100 and 1:300 as indicated. The western blot analysis was performed using Anti-acetyl-Histone H3 (Lys27) rabbit pAb (PTM-116) (**Figure C**) or Acetyl-Histone H2B (Lys5) rabbit pAb (PTM-107) (**Figure D**).

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.



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