**Anti-acetyllysine Antibody (clone Kac-01) Catalog:PTM-101**

**PTM Biolabs, Inc.**

**http://www.ptm-biolab.com**

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**Species Reactivity :** All species expected **size:**100ul

**Species:**Mouse  **Immunogen:** Acetylated BSA

**Product Description:** The mouse monoclonal pan anti-acetyllysine antibody (clone Kac-01) is purified with Protein G affinity chromatography. It specifically recognizes proteins with acetyllysine residues but not the propionyllysine or butyryllysine residues with structural similarity. Except the common usage such as Western blotting, immunoprecipitation and immunofluorescence. The antibody has been shown in combination with other one anti-acetyllysine antibody (Cat#PTM-102, clone Kac-11) to identify most lysine acetylated peptides in both prokaryotic and eukaryotic cells in proteomics screenings.

**Source/Purification:** Themouse monoclonal antibody is produced by immunizing animals with acetylated BSA. Antibodies are purified by acetyllysine-conjugated agarose from media of cultured cells.

**Specificity:** Anti-acetyllysine antibody detects proteins post-translationally modified by acetylation on lysine residues. The antibody recognizes acetylated lysine in a wide range of sequence contexts. The antibody has been shown to have more than 500 times selectivity against propionylated BSA, butyrylated BSA and unmodified BSA.

**Recommended Applications :** ELISA, WB, IF, IP

\* WB=Western blotting; IF=Immunofluorescence; IP=Immunopreciptation

Recommended dilution: WB: 1:1000; IF: 1:500; IP: 1:200

**IMPORTANT:** For Western blotting, incubate membrane with diluted antibody in 5% BSA, 1 x TBS, 0.1% Tween-20 at 4℃ with gentle shaking, overnight

*Use at an assay dependent concentration. Optimal dilutions/concentrations should be determined by the end user. Not yet tested in other applications.*



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**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.

**Storage & Stability:** Store product at -20℃. Avoid repeated freeze / thaw cycles. Storage Buffer: Antibody is kept in PBS with 50% glycerol and 0.01% sodium azide. Stable for 12 months from date of receipt.

\*\**This product is intended for research purposes only. The product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.*