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Acetyl-Histone H2B (Lys15) rabbit pAb

Catalog: PTM-109

Species reactivity: Eukaryotes

Size: 100 µl

Immunogen: Acetylated H2B (Lys15)-KLH

Species: Rabbit

Product Description: The rabbit-derived antibody is purified with protein A-conjugated agarose followed by acetylated histone H2B (Lys15) peptide affinity chromatography. It specifically recognizes histone H2B with lysine acetylation at Lys15.

Source/Purification: This product is produced by immunizing rabbits with a synthetic acetyl peptide corresponding to residues surrounding Lys15 of human histone H2B. Antibodies are purified by protein A-conjugated agarose followed by acetylated histone H2B (Lys15) peptide affinity chromatography.

Specificity: This antibody detects histone H2B only when it is acetylated at Lys15. This antibody has been shown to selectively recognize acetylated H2B peptide at Lys15, but not the the crotonylated peptide at Lys16 or the unmodified peptide.

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 histones 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 *et al*. 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.

Recommended Applications: ELISA, WB. Not tested in other applications.

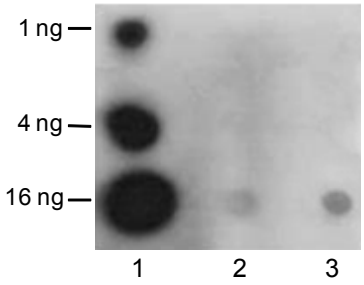
*WB=Western blotting

Recommended antibody dilution: WB: 1:2000

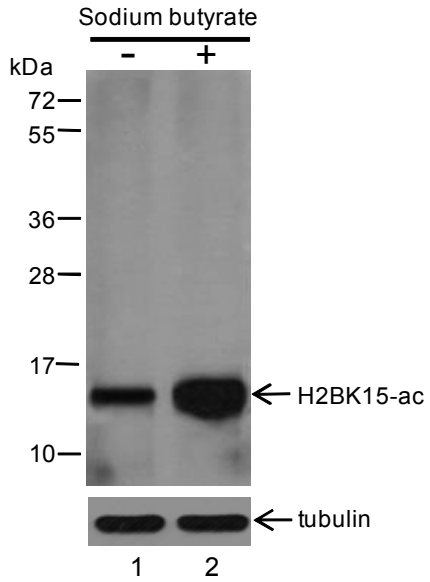
IMPORTANT: For Western blotting, incubate membrane with diluted antibody in 5% nonfat milk, 1 x TBS, 0.1% Tween-20 at room temperature with gentle shaking.

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

A



B



A. Dot blotting analysis on indicated amount of acetylated H2B peptide at Lys15 (lane 1), crotonylated H2B peptide at Lys15 (lane2), and unmodified H2B peptide at Lys16 (lane 3) using acetyl-histone H2B (Lys15) rabbit pAb. **B.** Western blotting analysis on 30 ug of crude proteins from HeLa whole cell lysates with (lane2) or without (lane1) treatment of sodium butyrate (30 mM, 4 hours) using acetyl-histone H2B (Lys15) rabbit pAb (1:2000).

Storage & Stability: Store product at -20℃. Avoid repeated freeze/thaw. Antibody is supplied 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.*