

PRODUCT INFORMATION



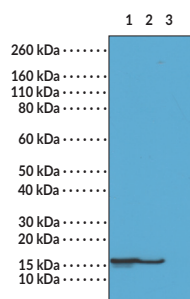
Histone H2BK23Ac Monoclonal Antibody (Clone RM260)

Item No. 32174

Overview and Properties

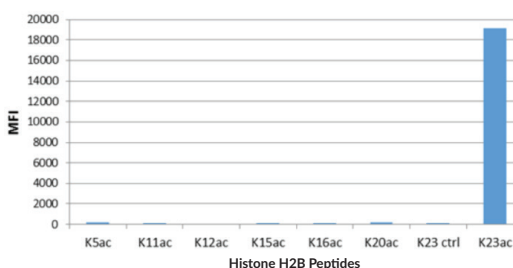
Contents: This vial contains 100 µg of protein A-affinity purified monoclonal antibody
Synonym: Acetylated Histone H2B Lysine 23
Immunogen: Peptide corresponding to H2BK23Ac
Cross Reactivity: (+) H2BK23Ac; (-) Unmodified H2BK23, H2BK5Ac, H2BK11Ac, H2BK12Ac, H2BK15Ac, H2BK16Ac, H2BK20Ac
Species Reactivity: (+) Vertebrates
Form: Liquid
Storage: -20°C (as supplied)
Stability: ≥1 year
Storage Buffer: PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Concentration: 1 mg/ml
Clone: RM260
Host: Rabbit
Isotype: IgG
Applications: ELISA, Immunocytochemistry (ICC), Multiplex-based assays, and Western blot (WB); the recommended starting concentration for ELISA is 0.2-1 µg/ml, 0.5-2 µg/ml for ICC and WB, and 0.1-0.5 µg/ml for multiplex-based assays. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images

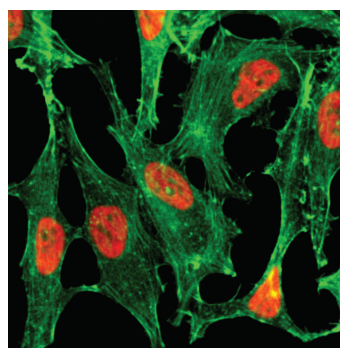


Lane 1: Acid extracts of HeLa cells (sodium butyrate)
Lane 2: Acid extracts of HeLa cells (untreated)
Lane 3: Recombinant histone H2B

WB of acid extracts of HeLa cells treated with sodium butyrate and untreated, and recombinant histone H2B using 0.5 µg/ml of Histone H2BK23Ac Monoclonal Antibody (Clone RM260).



Histone H2BK23Ac Monoclonal Antibody (Clone RM260) Specifically Reacts to Histone H2B Acetylated at H2BK23Ac. No cross reactivity with H2BK5A, H2BK15Ac, H2BK11Ac, H2BK12Ac, H2BK15Ac, H2BK16Ac, H2BK20Ac, or unmodified H2BK23.



Immunocytochemistry of HeLa Cells using Histone H2BK23Ac Monoclonal Antibody (Clone RM260) (red). Actin filaments have been labeled with fluorescein phalloidin (green).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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Description

Histone H2B is a nuclear protein and a component of the nucleosome core, a basic unit of chromatin, that is essential for organizing genomic DNA in eukaryotic nuclei.¹ It is a globular protein that contains a histone fold domain with a C-terminal α -helix that facilitates nucleosome interactions and chromatin compaction, as well as an unstructured N-terminal tail that extends outside of the nucleosome core, both of which are subject to various post-translational modifications (PTMs), including ubiquitination, acetylation, methylation, and phosphorylation.¹⁻³ Histone H2B is subject to acetylation at lysine 23 (H2BK23Ac).^{4,5} Cayman's Histone H2BK23Ac Monoclonal Antibody (Clone RM260) can be used for ELISA, immunocytochemistry (ICC), multiplex-based assay, and Western blot (WB) applications.

References

1. Hyun, K., Jeon, J., Park, K., *et al.* Writing, erasing and reading histone lysine methylations. *Exp. Mol. Med.* **49(4)**, e324 (2017).
2. Wyrick, J.J. and Parra, M.A. The role of histone H2A and H2B post-translational modifications in transcription: A genomic perspective. *Biochim. Biophys. Acta* **1789(1)**, 37-44 (2009).
3. Wang, C.-Y., Hua, C.-Y., Hsu, H.-E., *et al.* The C-terminus of histone H2B is involved in chromatin compaction specifically at telomeres, independently of its monoubiquitylation at lysine 123. *PLoS One* **6(7)**, e22209 (2011).
4. Zhou, X., Qian, G., Yi, X., *et al.* Systematic analysis of the lysine acetylome in *Candida albicans*. *J. Proteome Res.* **15(8)**, 2525-2536 (2016).
5. Liu, X., Zhao, L., Yang, Y., *et al.* Human borna disease virus infection impacts host proteome and histone lysine acetylation in human oligodendroglia cells. *Virology* **464-465**, 196-205 (2014).

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