PRODUCT INFORMATION

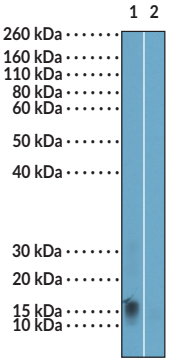
Histone H2BK11Ac Rabbit Monoclonal Antibody (Clone RM456)

Item No. 42791

Overview and Properties

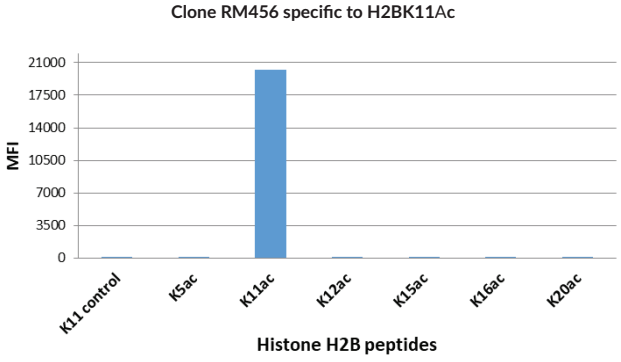
Contents:	This vial contains 100 µg of protein A-affinity purified monoclonal antibody.
Synonyms:	Acetylated Histone H2B Lysine 11
Immunogen:	An acetyl-peptide corresponding to Acetyl-Histone H2B (Lys11)
Cross Reactivity:	(+) H2BK11Ac; (-) Unmodified H2BK11, H2B5Ac, H2BK12Ac, H2BK15Ac, H2BK16Ac, H2BK20Ac
Species Reactivity:	(+) Human, vertebrates
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS, with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM456
Host:	Rabbit
Isotype:	IgG
Applications:	ELISA, multiplex-based assay, and Western blot (WB); the recommended starting concentration is 0.2-1 µg/ml for ELISA, 0.01–1 µg/ml for multiplex-based assay, and 0.001–0.01 µg/ml for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: HeLa cells treated
Lane 2: HeLa cells untreated

WB of HeLa cells treated with sodium butyrate or left untreated using Histone H2BK11Ac Rabbit Monoclonal Antibody (Clone RM456) at a concentration of 0.002 µg/ml.



Histone H2BK11Ac Rabbit Monoclonal Antibody (Clone RM456) specifically reacts to histone H2B acetylated at Lysine 11 (K11Ac). No cross reactivity with unmodified Lysine 11, or other acethylations in histone H2B.

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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] Acetylation of histone H2B at lysine 11 (H2BK11Ac) is downregulated in a mouse model of allergic asthma.[4] Cayman's Histone H2BK11Ac Rabbit Monoclonal Antibody (Clone RM456) can be used for ELISA, 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. Ren, Y., Li, M., Bai, S., *et al.* Identification of histone acetylation in a murine model of allergic asthma by proteomic analysis. *Exp. Biol. Med. (Maywood)* **246(8)**, 929-939 (2021).

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