PRODUCT INFORMATION

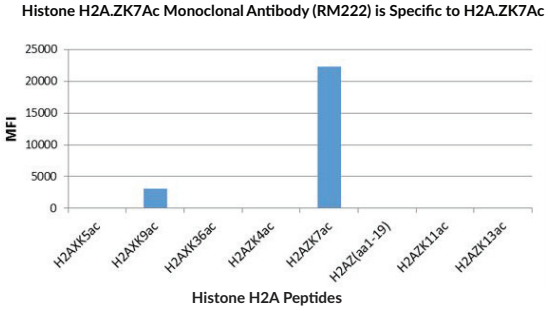
Histone H2A.ZK7Ac Monoclonal Antibody (RM222)

Item No. 32172

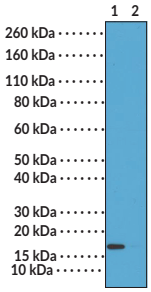
Overview and Properties

Contents:	This vial contains 100 µg of protein A-affinity purified monoclonal antibody.
Synonym:	Acetylated Histone H2A.Z Lysine 7
Immunogen:	Peptide corresponding to H2A.ZK7Ac
Cross Reactivity:	(+) H2A.ZK7Ac; (-) Unmodified H2A.Z (1-19), H2A.ZK4Ac, H2A.ZK11Ac, H2A.ZK13Ac, H2A.XK5Ac, H2A.XK9Ac, H2A.XK36Ac
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:	1.0 mg/ml
Clone:	RM222
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, 1-2 µg/ml for ICC, 0.05-0.5 for multiplex-based assays, and 0.5-2 µg/ml for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images

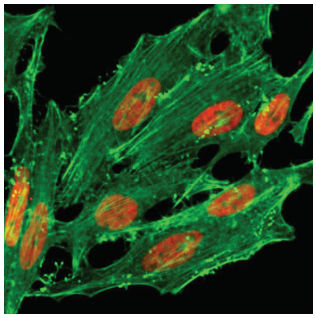


Histone H2A.ZK7Ac Monoclonal Antibody (RM222) specifically reacts to H2A.ZK7Ac. No cross reactivity with unmodified lysine 7 or other acetylated lysines in histone H2A.



Lane 1: Acid extracts from HeLa cells (treated)
Lane 2: Acid extracts from HeLa cells (untreated)

WB of acid extracts from HeLa cells treated or untreated with sodium butyrate using Histone H2A.ZK7Ac Monoclonal Antibody (RM222) at 0.5 µg/ml. This showed a band of histone H2A.ZK7Ac in treated HeLa cells.



Immunofluorescent labeling of HeLa cells treated with sodium butyrate, labeled with Histone H2A.ZK7Ac Monoclonal Antibody (RM222) (red). Actin filaments have been labeled with fluorescein phalloidin (green).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

PRODUCT INFORMATION

Description

Histone H2A.Z is a highly conserved variant of the core histone H2A that comprises approximately 5% of the total H2A found in vertebrates.[1] It is a globular protein that contains an unstructured N-terminal tail that extends outside of the nucleosome core and is subject to various post-translational modifications (PTMs), including methylation, phosphorylation, acetylation, SUMOylation and ubiquitination.[2,3] Acetylation of histone H2A.Z at lysine 7 (H2A.ZK7Ac) by the lysine acetyltransferase TIP60 is associated with transcriptional activation.[3,4] Cayman's Histone H2A.ZK7Ac Monoclonal Antibody (RM222) can be used for ELISA, immunocytochemistry (ICC), multiplex-based assay, and Western blot (WB) applications.

References

1. Hatch, C.L. and Bonner, W.M. The human histone H2A.Z gene. Sequence and regulation. *J. Biol. Chem.* **265(25)**, 15211-15218 (1990).
2. Hyun, K., Jeon, J., Park, K., *et al.* Writing, erasing and reading histone lysine methylations. *Exp. Mol. Med.* **49(4)**, e324 (2017).
3. Giaimo, B.D., Ferrante, F., Herchenröther, A., *et al.* The histone variant H2A.Z in gene regulation. *Epigenetics Chromatin* **12**, 37 (2019).
4. Colino-Sanguino, Y., Cornett, E.M., Moulder, D., *et al.* A read/write mechanism connects p300 bromodomain function to H2A.Z acetylation. *iScience* **21**, 773-788 (2019).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM