

PRODUCT INFORMATION



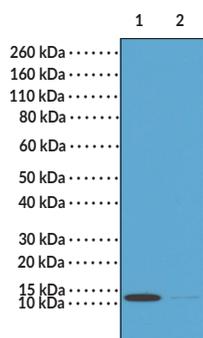
Histone H4K16Ac Monoclonal Antibody (RM204)

Item No. 32158

Overview and Properties

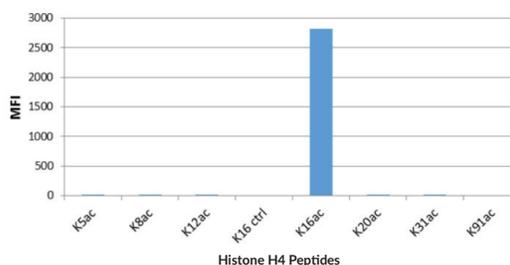
Contents: This vial contains 100 µg of protein A-affinity purified monoclonal antibody.
Synonym: Acetylated Histone H4 Lysine 16
Immunogen: Peptide corresponding to H4K16Ac
Cross Reactivity: (+) H4K16Ac; (-) Unmodified H4K16, H4K5Ac, H4K8Ac, H4K12Ac, H4K20Ac, H4K31Ac, H4K91Ac
Species Reactivity: (+) 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: RM204
Host: Rabbit
Isotype: IgG
Applications: ELISA, multiplex-based assays, and Western blot (WB); the recommended starting concentration for ELISA is 0.5-1 µg/ml and 0.5-2 µg/ml for multiplex-based assays and 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 H4K16Ac Monoclonal Antibody (RM204) at a concentration of 0.5 µg/ml.



Histone H4K16Ac Monoclonal Antibody (RM204) specifically reacts to H4K16Ac. There is no cross reactivity with unmodified H4K16, H4K5Ac, H4K8Ac, H4K12Ac, H4K20Ac, H4K31Ac, or H4K91Ac.

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
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 02/26/2024

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 H4 is one of four core histone proteins that are involved in the organization of DNA into chromatin.¹ Histones are globular proteins with unstructured N-terminal tails and are subject to a variety of post-translational modifications, such as methylation, acetylation, phosphorylation, and citrullination, that can influence chromatin structure and regulate gene transcription.^{1,2} Acetylation of histone H4 at lysine 16 (H4K16Ac) is associated with transcriptional activation.³ Cellular H4K16Ac levels are decreased in Jurkat and HL-60 leukemia cells compared with normal human lymphocytes, and tumor H4K16Ac levels are reduced in patients with lymphoma or colorectal cancer.⁴ Cayman's Histone H4K16Ac Monoclonal Antibody (RM204) can be used for ELISA, multiplex-based assay, and Western blot (WB) applications.

References

1. Wang, Y., Li, M., Stadler, S., *et al.* Histone hypercitrullination mediates chromatin decondensation and neutrophil extracellular trap formation. *J. Cell Biol.* **184**(2), 205-213 (2009).
2. Hyun, K., Jeon, J., Park, K., *et al.* Writing, erasing and reading histone lysine methylations. *Exp. Mol. Med.* **49**(4), e324 (2017).
3. Keating, S.T., van Diepen, J.A., Risken, N.P., *et al.* Epigenetics in diabetic nephropathy, immunity and metabolism. *Diabetologia* **61**(1), 6-20 (2018).
4. Fraga, M.F., Ballestar, E., Villar-Garea, A., *et al.* Loss of acetylation at Lys16 and trimethylation at Lys20 of histone H4 is a common hallmark of human cancer. *Nat. Genet.* **37**(4), 391-400 (2005).

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