

PRODUCT INFORMATION



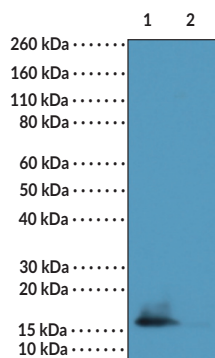
Histone H3K9Me2/K14Ac Monoclonal Antibody (RM322)

Item No. 32152

Overview and Properties

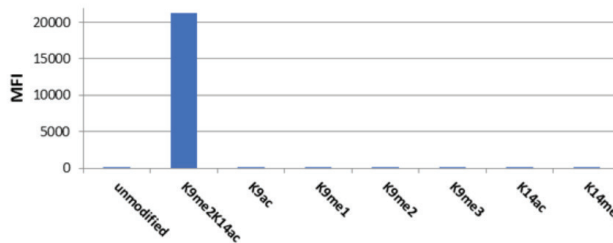
Contents: This vial contains 100 µg of protein A-affinity purified monoclonal antibody.
Immunogen: Peptide corresponding to H3K9Me2/K14Ac
Cross Reactivity: (+) H3K9Me2/K14Ac; (-) Unmodified histone H3, H3K9Me1, H3K9Me2, H3K9Me3, H3K9Ac, H3K14Ac, H3K14Me2
Species Reactivity: (+) Human
Form: Liquid
Storage: -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: RM322
Host: Rabbit
Isotype: IgG
Applications: Multiplex-based assays and Western blot (WB); the recommended starting concentration is 0.01-1 µg/ml for multiplex-based assays and 0.1-1 µg/ml for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: HeLa cells
Lane 2: Recombinant histone H3.3

WB of HeLa cells and recombinant histone H3.3 using Histone H3K9Me2/K14Ac Monoclonal Antibody (RM322) at a concentration 0.5 µg/ml.



Histone H3K9Me2/K14Ac Monoclonal Antibody (RM322) Reactivity to H3K9Me2/K14Ac. Histone H3K9Me2/K14Ac Monoclonal Antibody (RM322) specifically reacts to H3K9Me2/K14Ac. There is no cross reactivity with unmodified histone H3, H3K9Me1, H3K9Me2, H3K9Me3, H3K14Ac, and H3K14Me2.

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 H3 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 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, and citrullination.^{1,2} Dimethylation of histone H3 at lysine 9 (H3K9Me2) is associated with transcriptional repression, whereas acetylation of histone H3 at lysine 14 (H3K14Ac) is associated with transcriptional activation.^{3,4} H3K9Me2/K14Ac levels are increased in mouse differentiated embryonic stem cells (ESCs) compared with undifferentiated ESCs.⁵ Altered H3K9Me2/K14Ac levels have been found in tumor biopsies from patients with HER2⁺, triple-negative, luminal A-like, or luminal B-like breast cancer.⁶ Cayman's Histone H3K9Me2/K14Ac Monoclonal Antibody (RM322) recognizes histone H3 only when modified by both dimethylation at K9 and acetylation at K14. This antibody can be used for multiplex-based assay and Western blot (WB) applications.

References

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