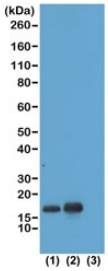
H3K23ac Antibody / HIST1H3A Chromatin Remodeling Regulatory Antibody [clone RM169] (R20229)

Catalog No.	Formulation	Size
R20229-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug
R20229-25UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	25 ug

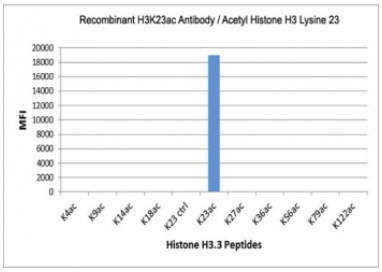
Recombinant RABBIT MONOCLONAL

Bulk quote request

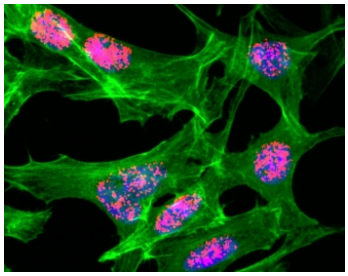
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM169
Purity	Protein A purified from animal origin-free supernatant
UniProt	P84243
Gene ID	8350
Applications	Western blot: 0.5-2ug/ml ELISA: 0.5-1ug/ml Immunocytochemistry: 1-2ug/ml
Limitations	This recombinant H3K23ac antibody is available for research use only.



H3K23ac Antibody / HIST1H3A Chromatin Remodeling Regulatory Antibody (clone RM169) for WB. Western blot analysis of HIST1H3A / Histone H3 Lys23 acetylation in acid extracts of human HeLa cells non-treated (1), sodium butyrate-treated (2), and recombinant Histone H3.3 (3) using H3K23ac Antibody / HIST1H3A Chromatin Remodeling Regulatory Antibody. A band is detected at the predicted molecular weight of approximately 15 kDa corresponding to acetylated Histone H3, with increased signal in treated cells consistent with histone deacetylase inhibition and enhanced chromatin remodeling and regulatory chromatin dynamics.



H3K23ac Antibody / HIST1H3A Chromatin Remodeling Regulatory Antibody (clone RM169) specificity analysis. Peptide binding assay demonstrating selective recognition of HIST1H3A / Histone H3 Lys23 acetylation (K23ac). Strong signal is observed exclusively with the K23ac peptide, while no detectable reactivity is seen with unmodified Lys23 (K23 ctrl) or acetylation at other lysine residues, confirming high specificity for the Lys23 acetylation site associated with chromatin remodeling and regulatory chromatin states.



ICC/IF staining of HeLa cells treated with sodium butyrate using recombinant H3K23ac antibody (red). Actin filaments have been labeled with fluorescein phalloidin (green).

Description

Histone H3 (HIST1H3A) acetylation at lysine 23 is a regulatory modification associated with chromatin remodeling and dynamic gene regulation. H3K23ac Antibody / HIST1H3A Chromatin Remodeling Regulatory Antibody (clone RM169) is designed to detect Histone H3 acetylated at lysine 23, providing a marker of flexible chromatin states that support transcriptional responsiveness and regulatory adaptation. This antibody is part of a broader collection of Histone H3 antibodies used to study chromatin structure, histone modifications, and epigenetic regulation.

HIST1H3A antibody, also referred to as Histone H3 antibody and H3K23ac antibody in the literature, recognizes a modification located within the N-terminal tail of Histone H3 that contributes to modulation of chromatin accessibility and nucleosome dynamics. H3K23 acetylation is associated with chromatin regions undergoing active remodeling and can be detected at promoters, regulatory regions, and dynamically regulated genomic loci.

This recombinant rabbit monoclonal clone RM169 antibody is uniquely positioned for studies of chromatin remodeling and regulatory plasticity rather than strictly promoter activation or transcription elongation. Unlike H3K9ac, which is strongly associated with active promoters, or H3K27ac, which marks enhancers, H3K23ac reflects a broader regulatory state linked to chromatin flexibility and dynamic gene regulation across multiple genomic contexts.

At the molecular level, H3K23 acetylation reduces histone-DNA interactions and facilitates recruitment of chromatin remodeling complexes that enable structural reorganization of nucleosomes. This modification supports transitions between inactive and active chromatin states, allowing rapid adaptation to cellular signals and environmental changes.

H3K23 acetylation often co-occurs with other histone modifications and contributes to combinatorial epigenetic regulation. Its presence reflects chromatin regions that are not only accessible but also dynamically regulated and responsive, providing insight into regulatory processes beyond static transcriptional states.

In western blot applications, the antibody detects Histone H3 at approximately 15 kDa, with signal corresponding to acetylated chromatin undergoing remodeling and regulatory transitions. Detection reflects dynamic chromatin behavior rather than fixed transcriptional stages such as initiation or elongation.

At the cellular level, H3K23 acetylation localizes to the nucleus and is enriched in euchromatic regions undergoing active regulatory changes. This distribution supports its use as a marker of chromatin remodeling and transcriptional flexibility rather than a site-specific functional marker.

This antibody supports detection of Lys23-acetylated Histone H3, enabling investigation of chromatin remodeling,

regulatory plasticity, and epigenetic control of gene expression dynamics.

Application Notes

The stated application concentrations are suggested starting points. Titration of the H3K23ac Antibody / HIST1H3A Chromatin Remodeling Regulatory Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An acetyl-peptide corresponding to Acetyl-Histone H3 (Lys23) was used as the immunogen for this H3K23ac Antibody / HIST1H3A Chromatin Remodeling Regulatory Antibody.

Storage

Store the recombinant H3K23ac antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).

Alternate Names

Histone H3 Lys23 acetylation antibody, H3K23ac chromatin remodeling antibody, histone H3 acetyl Lys23 antibody, regulatory chromatin histone antibody

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