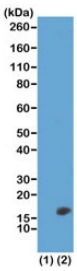
H3K23me2 Antibody / HIST1H3A Chromatin Remodeling Integration Antibody [clone RM171] (R20219)

Catalog No.	Formulation	Size
R20219-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug
R20219-25UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	25 ug

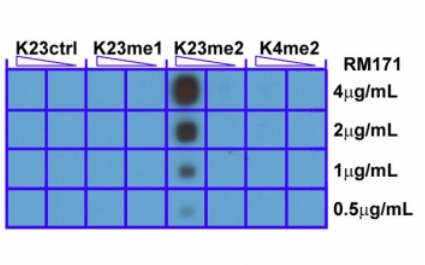
Recombinant RABBIT MONOCLONAL

Bulk quote request

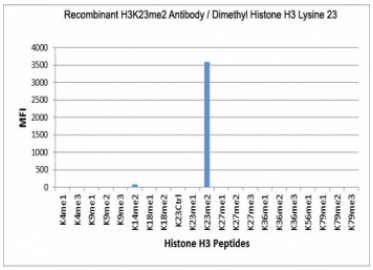
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM171
Purity	Protein A purified from animal origin-free supernatant
UniProt	P84243
Gene ID	8350
Applications	Western blot: 0.5-2ug/ml ELISA: 0.1ug/ml-0.5ug/ml
Limitations	This H3K23me2 antibody is available for research use only.



H3K23me2 Antibody / HIST1H3A Chromatin Remodeling Integration Antibody (clone RM171) for WB. Western blot analysis of HIST1H3A / Histone H3 Lys23 dimethylation (K23me2) in (1) recombinant Histone H3.3 and (2) acid extracts of human HeLa cells using H3K23me2 Antibody / HIST1H3A Chromatin Remodeling Integration Antibody. A band is detected at the predicted molecular weight of approximately 15 kDa corresponding to dimethylated Histone H3, consistent with chromatin remodeling processes and integrated epigenetic regulation of gene expression.



H3K23me2 Antibody / HIST1H3A Chromatin Remodeling Integration Antibody (clone RM171) specificity analysis. Peptide dot blot assay demonstrating selective recognition of HIST1H3A / Histone H3 Lys23 dimethylation (K23me2). Strong signal is observed exclusively with the K23me2 peptide across antibody concentrations, while no detectable reactivity is seen with unmodified Lys23 (K23Ctrl), monomethylated (K23me1), or unrelated dimethylated peptides including K4me2, confirming high specificity for the dimethylated Lys23 state associated with chromatin remodeling and integrated epigenetic regulation.



H3K23me2 Antibody / HIST1H3A Chromatin Remodeling Integration Antibody (clone RM171) specificity analysis. Peptide binding assay demonstrating selective recognition of HIST1H3A / Histone H3 Lys23 dimethylation (K23me2). Strong signal is observed exclusively with the K23me2 peptide, while no detectable reactivity is seen with other methylated histone H3 peptides, confirming high specificity for the dimethylated Lys23 state associated with chromatin remodeling and integrated epigenetic regulation of gene expression.

Description

Histone H3 (HIST1H3A) methylation at lysine 23 represents a regulatory chromatin modification associated with chromatin remodeling and integration of epigenetic signals across gene regulatory regions. H3K23me2 Antibody / HIST1H3A Chromatin Remodeling Integration Antibody (clone RM171) is designed to detect Histone H3 dimethylated at lysine 23, providing a marker of chromatin states that coordinate multiple regulatory inputs to control gene expression. 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 H3K23me2 antibody in the literature, recognizes a modification located within the N-terminal tail of histone H3 that participates in combinatorial epigenetic regulation. In contrast to H3K23ac, which is associated with transcriptional activation, H3K23me2 reflects chromatin environments involved in regulatory coordination and signal integration rather than direct transcriptional output.

This recombinant rabbit monoclonal clone RM171 antibody is uniquely positioned for studies of chromatin remodeling and epigenetic integration. H3K23 dimethylation is often present in genomic regions where activating and repressive signals converge, allowing cells to fine-tune gene expression in response to developmental cues and environmental stimuli.

At the molecular level, H3K23me2 contributes to chromatin states that facilitate recruitment of regulatory complexes and histone-modifying enzymes. It participates in combinatorial histone modification patterns that define chromatin accessibility, transcriptional responsiveness, and structural organization.

This modification frequently coexists with both activating and repressive marks, highlighting its role as an integrative component within complex chromatin landscapes. Its presence reflects coordinated regulation rather than discrete activation or silencing events.

In western blot applications, the antibody detects Histone H3 at approximately 15 kDa, with signal corresponding to dimethylated chromatin associated with regulatory integration and remodeling processes. Detection reflects coordinated chromatin control rather than promoter-specific or elongation-associated activity.

At the cellular level, H3K23 dimethylation localizes to the nucleus and is enriched in chromatin regions undergoing regulatory transitions. This supports its use in studying chromatin remodeling and epigenetic signal integration.

This antibody supports detection of Lys23-dimethylated Histone H3, enabling investigation of chromatin remodeling, epigenetic coordination, and integrated regulation of gene expression.

Application Notes

The stated application concentrations are suggested starting points. Titration of the H3K23me2 Antibody / HIST1H3A Chromatin Remodeling Integration Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A dimethyl-peptide corresponding to Dimethyl-Histone H3 (Lys23) was used as the immunogen for this H3K23me2 Antibody / HIST1H3A Chromatin Remodeling Integration Antibody.

Storage

Store the recombinant H3K23me2 antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).

Alternate Names

Histone H3 Lys23 dimethylation antibody, H3K23me2 chromatin remodeling antibody, histone H3 di methyl Lys23 antibody, H3K23 dimethyl histone antibody

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