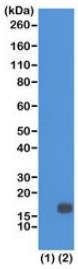
H3K18me2 Antibody / HIST1H3A Transcriptional Balance Chromatin Antibody [clone RM168] (R20217)

Catalog No.	Formulation	Size
R20217-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug
R20217-25UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	25 ug

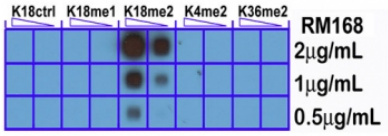
Recombinant RABBIT MONOCLONAL

Bulk quote request

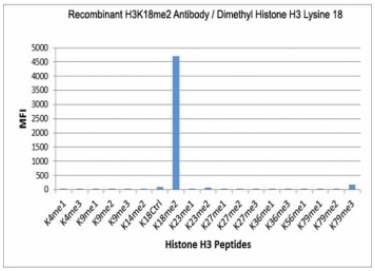
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM168
Purity	Protein A purified from animal origin-free supernatant
UniProt	P84243
Gene ID	8350
Applications	Western Blot : 0.2-1ug/ml ELISA : 0.1ug/ml-0.5ug/ml
Limitations	This H3K18me2 antibody is available for research use only.



H3K18me2 Antibody / HIST1H3A Transcriptional Balance Chromatin Antibody (clone RM168) for WB. Western blot analysis of HIST1H3A / Histone H3 Lys18 dimethylation (K18me2) in (1) recombinant Histone H3.3 and (2) acid extracts of human HeLa cells using H3K18me2 Antibody / HIST1H3A Transcriptional Balance Chromatin Antibody. A band is detected at the predicted molecular weight of approximately 15 kDa corresponding to dimethylated Histone H3, consistent with chromatin states regulating transcriptional balance and controlled gene expression.



H3K18me2 Antibody / HIST1H3A Transcriptional Balance Chromatin Antibody (clone RM168) specificity analysis. Peptide dot blot assay demonstrating selective recognition of HIST1H3A / Histone H3 Lys18 dimethylation (K18me2). Strong signal is observed exclusively with the K18me2 peptide across antibody concentrations, while no detectable reactivity is seen with unmodified Lys18 (K18Ctrl), monomethylated (K18me1), or unrelated dimethylated peptides including K4me2 and K36me2, confirming high specificity for the dimethylated Lys18 state associated with transcriptional balance and regulated chromatin activity.



H3K18me2 Antibody / HIST1H3A Transcriptional Balance Chromatin Antibody (clone RM168) specificity analysis. Peptide binding assay demonstrating selective recognition of HIST1H3A / Histone H3 Lys18 dimethylation (K18me2). Strong signal is observed exclusively with the K18me2 peptide, while no detectable reactivity is seen with other methylated histone H3 peptides, confirming high specificity for the dimethylated Lys18 state associated with transcriptional balance and regulated chromatin activity.

Description

Histone H3 (HIST1H3A) methylation at lysine 18 represents a chromatin modification involved in balancing transcriptional activation and repression. H3K18me2 Antibody / HIST1H3A Transcriptional Balance Chromatin Antibody (clone RM168) is designed to detect Histone H3 dimethylated at lysine 18, providing a marker of chromatin states that regulate gene expression equilibrium across diverse genomic contexts. 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 H3K18me2 antibody in the literature, recognizes a modification that occupies a regulatory position distinct from both acetylation and monomethylation at the same residue. While H3K18ac is associated with transcriptional activation and H3K18me1 reflects modulation, H3K18me2 represents a more defined chromatin state contributing to balanced gene expression.

This recombinant rabbit monoclonal clone RM168 antibody is uniquely positioned for studies of transcriptional balance and chromatin regulation. H3K18 dimethylation is associated with chromatin environments that integrate activating and repressive signals to maintain controlled levels of gene expression.

At the molecular level, H3K18me2 may influence recruitment of chromatin regulators that fine-tune transcriptional output and stabilize gene expression programs. It contributes to epigenetic patterns that define equilibrium between activation and repression.

This modification is frequently observed in regions undergoing controlled transcriptional regulation and may function as a stabilizing mark within dynamic chromatin environments. Its presence reflects regulated gene expression rather than extremes of activation or silencing.

In western blot applications, the antibody detects Histone H3 at approximately 15 kDa, with signal corresponding to dimethylated chromatin associated with balanced regulatory states. Detection reflects controlled transcriptional activity rather than promoter activation, elongation, or heterochromatin formation.

At the cellular level, H3K18 dimethylation localizes to the nucleus and is enriched in chromatin regions involved in regulated gene expression. This supports its use in studying transcriptional balance and chromatin state integration.

This antibody supports detection of Lys18-dimethylated Histone H3, enabling investigation of transcriptional balance, chromatin regulation, and epigenetic control of gene expression.

Application Notes

The stated application concentrations are suggested starting points. Titration of the H3K18me2 Antibody / HIST1H3A Transcriptional Balance Chromatin Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A dimethyl-peptide corresponding to Dimethyl-Histone H3 (Lys18) was used as the immunogen for this H3K18me2 Antibody / HIST1H3A Transcriptional Balance Chromatin Antibody.

Storage

Store the recombinant H3K18me2 antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).

Alternate Names

Histone H3 Lys18 dimethylation antibody, H3K18me2 transcription balance antibody, histone H3 di methyl Lys18 antibody, H3K18 dimethyl histone antibody

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