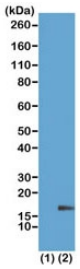
# H3K18me1 Antibody / HIST1H3A Regulatory Modulation Chromatin Antibody [clone RM167] (R20218)

| Catalog No. | Formulation | Size |
|---|---|---|
| R20218-100UG | 1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide | 100 ug |
| R20218-25UG | 1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide | 25 ug |

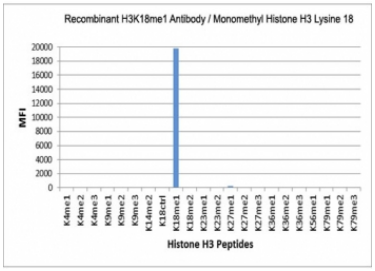
Recombinant RABBIT MONOCLONAL

**Bulk quote request**

| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Rabbit |
| **Clonality** | Recombinant Rabbit Monoclonal |
| **Isotype** | Rabbit IgG |
| **Clone Name** | RM167 |
| **Purity** | Protein A purified from animal origin-free supernatant |
| **UniProt** | P84243 |
| **Gene ID** | 8350 |
| **Applications** | Western blot: 1-2ug/ml<br>ELISA: 0.2-1ug/ml |
| **Limitations** | This recombinant H3K18me1 antibody is available for research use only. |




H3K18me1 Antibody / HIST1H3A Regulatory Modulation Chromatin Antibody (clone RM167) for WB. Western blot analysis of HIST1H3A / Histone H3 Lys18 monomethylation (K18me1) in (1) recombinant Histone H3.3 and (2) acid extracts of human HeLa cells using H3K18me1 Antibody / HIST1H3A Regulatory Modulation Chromatin Antibody. A band is detected at the predicted molecular weight of approximately 15 kDa corresponding to monomethylated Histone H3, consistent with chromatin states involved in transcriptional modulation and regulatory balance.




H3K18me1 Antibody / HIST1H3A Regulatory Modulation Chromatin Antibody (clone RM167) specificity analysis. Peptide binding assay demonstrating selective recognition of HIST1H3A / Histone H3 Lys18 monomethylation (K18me1). Strong signal is observed exclusively with the K18me1 peptide, while no detectable reactivity is seen with unmodified Lys18 (K18Ctrl), dimethylated (K18me2), or other methylated histone H3 peptides, confirming high specificity for the monomethylated Lys18 state associated with chromatin regulatory modulation.

## Description

Histone H3 (HIST1H3A) methylation at lysine 18 represents a regulatory modification associated with modulation of transcriptional activity and chromatin state balance. H3K18me1 Antibody / HIST1H3A Regulatory Modulation Chromatin Antibody (clone RM167) is designed to detect Histone H3 monomethylated at lysine 18, providing insight into chromatin environments that fine-tune gene expression rather than fully activating or repressing transcription. 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 H3K18me1 antibody in the literature, recognizes a modification occupying a distinct functional space relative to acetylation at the same residue. While H3K18ac is strongly associated with transcriptional activation and co-activator recruitment, H3K18me1 reflects a more nuanced regulatory state that modulates transcriptional output and responsiveness.

This recombinant rabbit monoclonal clone RM167 antibody is uniquely positioned for studies of chromatin modulation and regulatory balance. H3K18 monomethylation is associated with genomic regions that respond dynamically to signaling inputs and undergo controlled transitions between active and inactive states.

At the molecular level, H3K18me1 may influence chromatin structure and protein interactions in a manner distinct from acetylation, contributing to regulation of transcriptional amplitude rather than binary on or off states. It is often found in chromatin regions undergoing controlled gene expression changes.

This modification participates in combinatorial epigenetic regulation, interacting with other histone marks to define specific chromatin states. Its presence reflects fine-tuning of gene expression programs rather than establishment of stable activation or repression domains.

In western blot applications, the antibody detects Histone H3 at approximately 15 kDa, with signal corresponding to monomethylated chromatin associated with regulatory modulation. Detection reflects dynamic chromatin control rather than promoter activation, enhancer signaling, or elongation-associated processes.

At the cellular level, H3K18 monomethylation localizes to the nucleus and is enriched in euchromatic regions undergoing regulatory control. This distinguishes it from strongly activating acetylation marks and from repressive methylation states.

This antibody supports detection of Lys18-monomethylated Histone H3, enabling investigation of chromatin modulation, transcriptional fine-tuning, and epigenetic regulation of gene expression dynamics.

## Application Notes

The stated application concentrations are suggested starting points. Titration of the H3K18me1 Antibody / HIST1H3A Regulatory Modulation Chromatin Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

## Immunogen

A monomethyl-peptide corresponding to Monomethyl-Histone H3 (Lys18) was used as the immunogen for this

H3K18me1 Antibody / HIST1H3A Regulatory Modulation Chromatin Antibody.

## Storage

Store the recombinant H3K18me1 antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).

## Alternate Names

Histone H3 Lys18 monomethylation antibody, H3K18me1 chromatin modulation antibody, histone H3 mono methyl Lys18 antibody, H3K18 monomethyl histone antibody


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