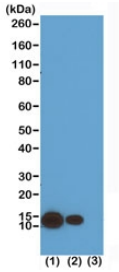
H4K8ac Antibody / Histone H4 Lysine 8 Acetylation Chromatin Remodeling Antibody [clone RM201] (R20225)

Catalog No.	Formulation	Size
R20225-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug
R20225-25UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	25 ug

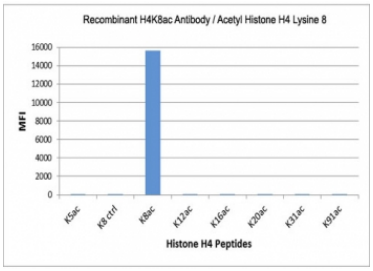
Recombinant RABBIT MONOCLONAL

Bulk quote request

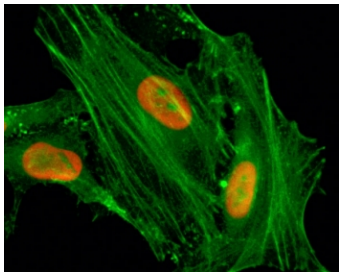
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM201
Purity	Protein A purified from animal origin-free supernatant
UniProt	P62805
Gene ID	121504
Applications	Western blot: 0.5-2ug/ml ELISA: 0.2-1ug/ml Immunocytochemistry: 0.5-2ug/ml
Limitations	This recombinant H4K8ac antibody is available for research use only.



H4K8ac Antibody for WB. Western blot analysis of histone H4 lysine 8 acetylation in chromatin samples. Lane 1: acid extract of human HeLa cells treated with sodium butyrate, Lane 2: acid extract of untreated human HeLa cells, Lane 3: recombinant histone H4 protein. A band is detected at approximately 11 kDa, consistent with the predicted molecular weight of Histone H4 (HIST1H4). Increased signal intensity in sodium butyrate-treated cells reflects enhanced H4K8 acetylation associated with chromatin remodeling and increased histone acetylation levels.



H4K8ac Antibody specificity. Peptide binding analysis demonstrating selective recognition of histone H4 lysine 8 acetylation. Strong signal is observed exclusively for the H4K8ac peptide, with no detectable reactivity toward unmodified lysine 8 (K8 control) or other acetylated histone H4 peptides. These results confirm high specificity of the H4K8ac antibody for chromatin remodeling-associated acetylated histone H4.



H4K8ac Antibody for IF. Immunofluorescence analysis of histone H4 lysine 8 acetylation in sodium butyrate-treated human HeLa cells using H4K8ac Antibody (red). Predominant nuclear staining is observed, consistent with localization of acetylated histone H4 (HIST1H4) within chromatin during active chromatin remodeling. Actin filaments are labeled with fluorescein phalloidin (green), and nuclei are visualized with DAPI (blue), highlighting nuclear enrichment of this chromatin remodeling-associated acetylation mark.

Description

Histone H4 (HIST1H4) is a core nucleosomal histone whose lysine 8 acetylation (H4K8ac) contributes to dynamic chromatin remodeling and increased DNA accessibility. H4K8ac Antibody (clone RM201) detects this modification, which is associated with nucleosome mobility and structural transitions that allow chromatin to shift between compact and accessible states. This positions H4K8ac as a key marker of chromatin remodeling rather than static chromatin organization. This antibody is part of our broader Histone H4 antibody collection, including acetylation, methylation, phosphorylation, and total H4 detection reagents for chromatin and epigenetics research.

H4K8ac antibody, also referred to as Histone H4 K8 acetyl antibody or HIST1H4 acetylation antibody in the literature, is commonly used to study chromatin accessibility and remodeling processes. Acetylation at lysine 8 is catalyzed by histone acetyltransferases such as p300 and CBP, which are recruited to regions of chromatin undergoing structural reorganization. This modification promotes recruitment of bromodomain-containing proteins that recognize acetylated lysine residues and facilitate chromatin remodeling.

Mechanistically, acetylation at lysine 8 neutralizes the positive charge of the histone tail, weakening histone-DNA interactions and promoting nucleosome repositioning. This enhances chromatin flexibility and allows regulatory complexes to access DNA. Unlike lysine 5 acetylation, which is linked to newly synthesized histones, H4K8 acetylation is more strongly associated with dynamic chromatin remodeling events occurring throughout the genome.

The histone H4 tail plays a central role in mediating interactions between nucleosomes, and acetylation at lysine 8 disrupts these interactions to facilitate chromatin reorganization. This results in increased chromatin accessibility without necessarily inducing large-scale chromatin unfolding, distinguishing H4K8ac from modifications that regulate higher-order chromatin structure.

H4K8 acetylation also contributes to recruitment of chromatin remodeling complexes and histone readers that drive nucleosome repositioning and chromatin restructuring. Dysregulation of this modification has been linked to altered epigenetic states and aberrant chromatin accessibility in disease contexts, including cancer.

A recombinant rabbit monoclonal antibody such as clone RM201 enables specific detection of H4K8 acetylation in studies focused on chromatin remodeling, nucleosome mobility, and accessibility-driven chromatin dynamics.

Chromatin organization and epigenetic pathway studies may also benefit from our Histone H4 antibody targeting core nucleosome structure and nuclear chromatin biology.

Application Notes

The stated application concentrations are suggested starting points. Titration of the H4K8ac Antibody / Histone H4 Lysine 8 Acetylation Chromatin Remodeling Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An acetyl-peptide corresponding to Acetyl-Histone H4 (Lys8) was used as the immunogen for this H4K8ac Antibody / Histone H4 Lysine 8 Acetylation Chromatin Remodeling Antibody.

Storage

Store the recombinant H4K8ac antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).

Alternate Names

H4K8ac antibody, Histone H4 acetyl lysine 8 antibody, HIST1H4 acetylation antibody, H4 chromatin remodeling antibody

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