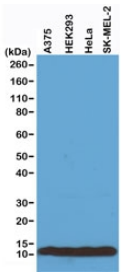
Histone H4 Antibody / Total H4 Chromatin Protein Antibody [clone RM212] (R20254)

Catalog No.	Formulation	Size
R20254-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug
R20254-25UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	25

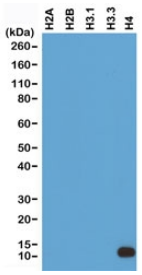
Recombinant RABBIT MONOCLONAL

Bulk quote request

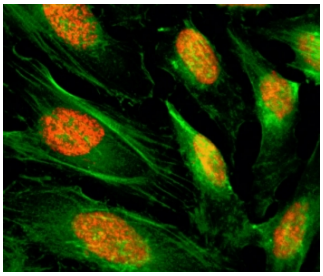
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM212
Purity	Protein A purified from animal origin-free supernatant
UniProt	P62805
Gene ID	121504
Applications	Western Blot : 0.1-0.5ug/ml Immunocytochemistry : 1-2ug/ml ELISA : 0.2-1ug/ml
Limitations	This recombinant Histone H4 antibody is available for research use only.



Histone H4 Antibody Human Sample WB. Western blot analysis of total histone H4 expression in whole cell lysates. Lane 1: A375 cells, Lane 2: HEK293 cells, Lane 3: HeLa cells, Lane 4: SK-MEL-2 cells. A band is detected at approximately 11 kDa, consistent with the predicted molecular weight of Histone H4 (HIST1H4). Uniform band intensity across cell lines reflects the ubiquitous expression of histone H4 as a core nucleosomal protein and chromatin structural component.



Histone H4 Antibody Specificity WB. Western blot analysis of recombinant histone proteins. Lane 1: histone H2A, Lane 2: histone H2B, Lane 3: histone H3.1, Lane 4: histone H3.3, Lane 5: histone H4. A band is detected at approximately 11 kDa exclusively in the histone H4 lane, consistent with the predicted molecular weight of Histone H4 (HIST1H4). No signal is observed for H2A, H2B, or H3 variants, demonstrating specific recognition of histone H4 without cross-reactivity to other core histones.



Histone H4 Antibody for IF. Immunofluorescence analysis of total histone H4 expression in human HeLa cells using Histone H4 Antibody (red). Predominant nuclear staining is observed, consistent with localization of Histone H4 (HIST1H4) within chromatin as a core nucleosomal protein. Actin filaments are labeled with fluorescein phalloidin (green), and nuclei are visualized with DAPI (blue), highlighting uniform nuclear distribution of total histone H4 across cells.

Description

Histone H4 (HIST1H4) is a core nucleosomal histone that plays a fundamental role in chromatin organization, DNA packaging, and genome stability. Histone H4 Antibody (clone RM212) detects total histone H4 protein independent of post-translational modifications, providing consistent and reproducible measurement of chromatin-associated histone levels. As a recombinant rabbit monoclonal antibody, clone RM212 is designed to deliver defined specificity and lot-to-lot consistency, making it well suited for quantitative and comparative chromatin studies. 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.

Histone H4 antibody, also referred to as H4 antibody or HIST1H4 antibody in the literature, is widely used as a reference marker for total histone content. Detection of total H4 is critical for normalization in experiments analyzing histone modifications, ensuring that observed changes reflect true biological differences rather than variation in histone abundance. This is particularly important in western blot, chromatin fractionation, and epigenetic profiling studies.

At the structural level, histone H4 forms a heterotetramer with histone H3 that serves as the central scaffold of the nucleosome. This structure stabilizes DNA wrapping and maintains nucleosome integrity. The H4 N-terminal tail extends outward and mediates interactions between adjacent nucleosomes, contributing to chromatin compaction and higher-order chromatin organization.

Histone H4 is highly conserved across species and is expressed in all cell types, with increased synthesis during DNA replication to support nucleosome assembly. Its consistent abundance and structural role make it an ideal marker for chromatin content and a widely used internal control in chromatin-based assays.

The use of a recombinant rabbit monoclonal antibody such as clone RM212 provides advantages in specificity, reproducibility, and reduced background compared to polyclonal antibodies. This ensures reliable detection across experiments and minimizes variability in long-term studies or large datasets.

Detection of total histone H4 using clone RM212 supports studies of chromatin organization, nucleosome structure, and epigenetic regulation, providing a robust baseline for interpreting histone modification patterns and chromatin-associated processes.

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 Histone H4 Antibody / Total H4 Chromatin Protein Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A peptide corresponding to the C-terminus of human Histone H4 was used as the immunogen for this Histone H4 Antibody / Total H4 Chromatin Protein Antibody.

Storage

Store the recombinant Histone H4 antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).

Alternate Names

Histone H4 antibody, H4 antibody, HIST1H4 antibody, recombinant H4 antibody, Total H4 Protein Antibody