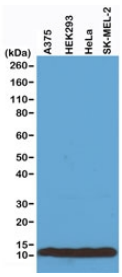
Recombinant Histone H4 Antibody [clone RM212] (R20254)

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

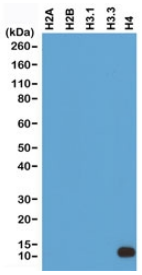
Recombinant RABBIT MONOCLONAL

Bulk quote request

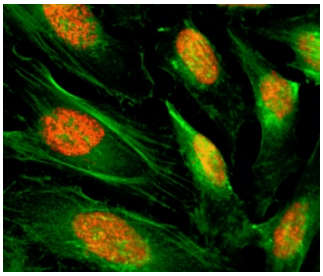
Availability	1-3 business days
Species Reactivity	All Species
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM212
Purity	Protein A purified from animal origin-free supernatant
UniProt	P62805
Gene ID	121504
Applications	Western Blot : 0.1-0.5ug/ml Immunocytochemistry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



Western blot of A375, HEK293, HeLa and SK-MEL-2 whole cell lysates using recombinant Histone H4 antibody at 0.2 ug/ml.



Western blot test of recombinant Histone H2A, H2B, H3.1, H3.3 and H4 proteins using recombinant Histone H4 antibody at 0.2 ug/ml.



ICC/IF of HeLa cells using recombinant Histone H4 antibody (red). Actin filaments have been labeled with fluorescein phalloidin (green).

Description

The Recombinant Histone H4 antibody is a recombinant reagent engineered to detect histone H4, one of the four essential core histones that form nucleosomes, the fundamental units of chromatin. Together with histones H2A, H2B, and H3, histone H4 organizes DNA into nucleosomes that compact the genome while regulating its accessibility for transcription, replication, and repair. Histone H4 is highly conserved across species, reflecting its central role in genome stability and chromatin function. The Recombinant Histone H4 antibody provides researchers with a reliable tool for the consistent detection of this key chromatin protein in multiple applications.

Structurally, histone H4 contains a globular domain that participates in nucleosome assembly as well as an N-terminal tail that extends outward from the nucleosome core. This tail is subject to extensive post-translational modifications, including acetylation, methylation, and phosphorylation, which influence chromatin compaction and transcriptional regulation. Modifications on H4, such as acetylation of lysines 5, 8, 12, and 16, serve as classic epigenetic marks linked to active transcription. The Recombinant Histone H4 antibody recognizes conserved epitopes within the protein, ensuring broad detection across species and experimental systems.

In western blotting, the Recombinant Histone H4 antibody provides robust detection of total H4 protein in nuclear or whole-cell extracts, often serving as a normalization control in chromatin studies. In immunofluorescence, it reveals a uniform nuclear staining pattern consistent with its widespread presence in chromatin. In immunohistochemistry, the antibody highlights H4 distribution in tissue sections, enabling analysis of chromatin composition during development or disease progression. It is also suitable for chromatin immunoprecipitation (ChIP), where the Recombinant Histone H4 antibody can enrich nucleosome-associated DNA for downstream analysis of epigenetic landscapes. Recombinant production ensures reproducibility across lots, reducing variability compared with hybridoma-derived reagents.

This antibody is particularly valuable for epigenetics and cancer research, as aberrant H4 modifications are frequently linked to disrupted gene expression and oncogenesis. It is also widely used in stem cell biology, where global chromatin changes accompany differentiation and reprogramming. Synonym terms such as recombinant H4 antibody, recombinant histone core H4 antibody, and recombinant nucleosomal H4 antibody improve accessibility for researchers using alternate nomenclature.

By providing validated and reproducible detection, the Recombinant Histone H4 antibody enhances the accuracy of studies focused on chromatin structure and epigenetic regulation. NSJ Bioreagents supplies this antibody under stringent quality control standards, giving scientists confidence in its performance across western blotting, immunofluorescence, immunohistochemistry, and ChIP. With specificity for one of the most conserved and essential histones, the Recombinant Histone H4 antibody is a core reagent for investigations of genome organization and regulation.

This recombinant Histone H4 antibody reacts to the Histone H4 protein, independent of post-translational modifications. No cross reactivity with other histone proteins.

Application Notes

The stated application concentrations are suggested starting points. Titration of the recombinant Histone H4 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 recombinant Histone H4 antibody.

Storage

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