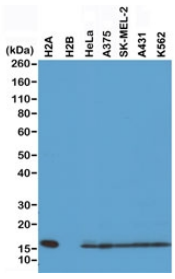
Recombinant Histone H2A Antibody [clone RM225] (R20248)

Catalog No.	Formulation	Size
R20248-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug
R20248-25UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	25

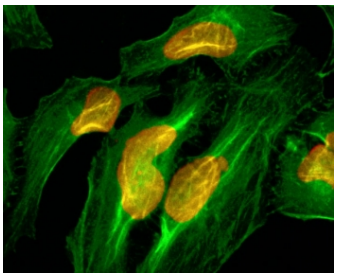
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	All Species
Format	Purified
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM225
Purity	Protein A purified from animal origin-free supernatant
UniProt	P04908, P0C0S8, P20671
Gene ID	3012
Applications	Western Blot : 0.5-2ug/ml Immunocytochemistry : 1-2ug/ml ELISA : 0.2-1ug/ml
Limitations	This recombinant Histone H2A antibody is available for research use only.



Western blot of recombinant Histone H2A protein, H2B protein and whole cell lysates of human HeLa, A375, SK-MEL-2, A431, and K562 cells using recombinant Histone H2A antibody at 0.5 ug/ml. Predicted molecular weight ~14 kDa.



ICC/IF of HeLa cells using recombinant Histone H2A antibody (red). Actin filaments have been labeled with fluorescein phalloidin (green).

Description

The Recombinant Histone H2A antibody is a recombinant reagent designed to specifically recognize histone H2A, one of the four core histone proteins that assemble into nucleosomes. Together with histones H2B, H3, and H4, H2A organizes DNA into chromatin, enabling compaction of the genome while also regulating accessibility for transcription, replication, and repair. Because of its fundamental role in chromatin biology, histone H2A is a central target in studies of epigenetics, nucleosome dynamics, and genome stability. The Recombinant Histone H2A antibody provides reliable and reproducible detection of this essential chromatin component across multiple assay platforms.

Histone H2A forms dimers with histone H2B, and two such dimers combine with an H3-H4 tetramer to create the histone octamer around which DNA is wrapped. This nucleosome structure represents the basic repeating unit of chromatin, organizing approximately 147 base pairs of DNA per nucleosome. Beyond its structural role, H2A is subject to a variety of post-translational modifications, including phosphorylation, acetylation, and ubiquitination. These modifications alter chromatin architecture and influence transcription, DNA damage signaling, and repair. The Recombinant Histone H2A antibody recognizes conserved epitopes within H2A, ensuring robust detection across species and cell types.

In western blotting, the Recombinant Histone H2A antibody identifies H2A in cell extracts, providing a measure of chromatin protein content and enabling normalization in chromatin-based assays. In immunofluorescence, it reveals nuclear staining consistent with chromatin localization, supporting studies of nuclear architecture and histone distribution. In immunohistochemistry, the antibody highlights H2A-rich chromatin in tissue sections, facilitating investigation of developmental and pathological processes. It can also be applied in chromatin immunoprecipitation (ChIP) to enrich nucleosome-associated DNA, aiding exploration of transcriptional regulation and epigenetic modifications.

This reagent is particularly valuable in research on DNA damage responses, where H2A variants such as H2AX undergo phosphorylation to signal double-strand breaks. The Recombinant Histone H2A antibody complements phospho-specific reagents by enabling detection of total H2A levels, providing context for interpreting histone modifications. Synonym phrases such as recombinant H2A antibody, recombinant histone H2A core antibody, and recombinant nucleosomal H2A antibody improve discoverability for scientists searching under different naming conventions.

By offering validated and reproducible detection, the Recombinant Histone H2A antibody supports accurate and consistent research into chromatin structure and function. NSJ Bioreagents supplies this antibody under strict quality control, ensuring reliable results in western blotting, immunofluorescence, immunohistochemistry, and ChIP. With its ability to target a highly conserved histone protein, the Recombinant Histone H2A antibody is an indispensable reagent for epigenetic studies, chromatin biology, and investigations into genome organization and stability.

This recombinant Histone H2A antibody reacts to the Histone H2A 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 H2A antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A peptide corresponding to the C-terminus of human Histone H2A was used as the immunogen for this recombinant

Histone H2A antibody.

Storage

Store the recombinant Histone H2A antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).