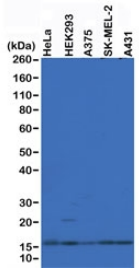
Histone H2AZ Antibody / H2AFZ Chromatin Regulation Antibody [clone RM215] (R20251)

Catalog No.	Formulation	Size
R20251-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug
R20251-25UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	25

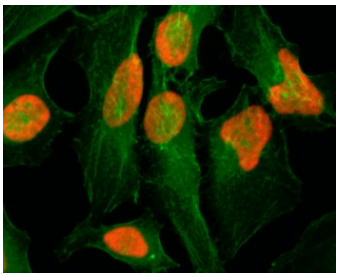
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM215
Purity	Protein A purified from animal origin-free supernatant
UniProt	P0C0S5
Gene ID	3015
Applications	Western Blot : 0.1-0.5ug/ml Immunocytochemistry : 1-2ug/ml ELISA : 0.1-1ug/ml
Limitations	This Histone H2AZ antibody is available for research use only.



Histone H2AZ Antibody / H2AFZ Chromatin Regulation Antibody (clone RM215) for WB. Western blot analysis of H2AFZ / Histone H2A.Z expression in human cell lysates including HeLa, HEK293, A375, SK-MEL-2, and A431 using Histone H2AZ Antibody / H2AFZ Chromatin Regulation Antibody. A band is detected at the predicted molecular weight of approximately 14 kDa corresponding to Histone H2A.Z, consistent with nuclear chromatin-associated histone variant expression across multiple cell types and regulatory chromatin contexts.



Histone H2AZ Antibody / H2AFZ Chromatin Regulation Antibody (clone RM215) for IF. Immunofluorescence analysis of H2AFZ / Histone H2A.Z in human HeLa cells using Histone H2AZ Antibody / H2AFZ Chromatin Regulation Antibody. Strong nuclear staining is observed (red), consistent with chromatin-associated localization of the H2A.Z histone variant within the nucleus, while actin filaments are visualized in the cytoplasm (green), highlighting cell morphology and confirming nuclear-specific chromatin signal.

Description

Histone H2A.Z (H2AFZ) is a highly conserved histone variant that plays a central role in chromatin organization, transcriptional regulation, and epigenetic control of gene expression. Histone H2AZ Antibody / H2AFZ Chromatin Regulation Antibody (clone RM215) is designed to detect the H2A.Z protein, providing a foundational marker for studying chromatin dynamics and regulatory architecture across the genome. This antibody belongs to a broader group of Histone H2A antibodies used to analyze chromatin dynamics, including H2A.Z variant biology and associated histone modifications.

H2AFZ antibody, also referred to as H2A.Z antibody and Histone H2AZ antibody in the literature, recognizes a variant of canonical histone H2A that is selectively incorporated into nucleosomes at specific genomic regions. Unlike core H2A, H2A.Z is enriched at transcription start sites, regulatory elements, and chromatin boundaries, where it influences nucleosome positioning and stability.

This recombinant rabbit monoclonal clone RM215 antibody is uniquely positioned as a core detection tool for H2A.Z biology and serves as an anchor for studying its modified forms, including acetylated variants such as H2A.ZK4ac and H2A.ZK7ac. The presence of H2A.Z within nucleosomes is a defining feature of regulatory chromatin and is critical for both transcriptional activation and repression depending on context.

At the molecular level, incorporation of H2A.Z alters nucleosome structure, affecting DNA accessibility and histone-histone interactions. H2A.Z-containing nucleosomes are generally more dynamic than canonical nucleosomes, enabling rapid chromatin remodeling and facilitating transcription factor binding.

H2A.Z plays a dual regulatory role. At active promoters, it is associated with transcription initiation and gene activation, particularly when acetylated. In other contexts, it contributes to chromatin insulation and repression, demonstrating its versatility as a chromatin regulator.

This histone variant is also involved in maintaining genome stability, regulating DNA repair pathways, and establishing chromatin domain boundaries. Its distribution across the genome provides insight into chromatin organization and functional genomic regions.

H2A.Z is highly expressed in proliferative and developmentally regulated tissues, reflecting its role in controlling gene expression programs during cell growth and differentiation. Dysregulation of H2A.Z has been implicated in cancer and other diseases, where altered chromatin dynamics contribute to aberrant gene expression.

At the cellular level, H2A.Z localizes to the nucleus and is enriched in euchromatic regions as well as regulatory chromatin domains. Its presence marks nucleosomes that are structurally and functionally distinct from canonical chromatin.

This antibody supports detection of Histone H2A.Z, enabling investigation of chromatin architecture, transcriptional regulation, histone variant biology, and epigenetic mechanisms governing gene expression.

Application Notes

The stated application concentrations are suggested starting points. Titration of the recombinant Histone H2AZ Antibody / H2AFZ Chromatin Regulation Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A peptide corresponding to the C-terminus of human Histone H2AZ was used as the immunogen for this Histone H2AZ Antibody / H2AFZ Chromatin Regulation Antibody.

Storage

Store the recombinant Histone H2AZ antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).

Alternate Names

H2A.Z antibody, H2AFZ histone variant antibody, Histone H2A.Z chromatin antibody, H2AZ nuclear chromatin antibody

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