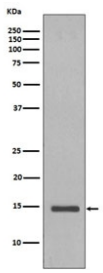
Yeast Histone H2B Antibody / Chromatin Structure Antibody [clone DEH-8] (RQ4991)

Catalog No.	Formulation	Size
RQ4991	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-2 weeks
Species Reactivity	Yeast
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	DEH-8
Purity	Affinity purified
UniProt	P02293
Applications	Western Blot : 1:500-1:2000
Limitations	This Yeast Histone H2B antibody is available for research use only.



Yeast Histone H2B Antibody / Chromatin Structure Antibody (clone DEH-8) for WB. Western blot analysis of Histone H2B in Saccharomyces cerevisiae lysate using Yeast Histone H2B Antibody / Chromatin Structure Antibody. A band is detected at the predicted molecular weight corresponding to Histone H2B, consistent with nuclear chromatin-associated histone expression and nucleosome core protein structure in yeast cells.

Description

Histone H2B in Saccharomyces cerevisiae is a core nucleosomal protein essential for chromatin organization, genome stability, and transcriptional regulation in yeast. As a fundamental component of the nucleosome, yeast H2B provides a highly conserved structural and regulatory framework that has been extensively used to study chromatin biology. Yeast Histone H2B Antibody / Chromatin Structure Antibody (clone DEH-8) is designed to detect Histone H2B in Saccharomyces cerevisiae, providing a key tool for investigating chromatin dynamics in this widely used model organism.

This antibody is part of a broader collection of Histone H2B antibodies used to study chromatin structure, histone modifications, and epigenetic regulation.

Yeast H2B antibody, also referred to as Histone H2B antibody and Saccharomyces cerevisiae H2B antibody in the literature, recognizes a histone protein that is evolutionarily conserved but functionally specialized within yeast chromatin systems. The simplicity and genetic tractability of yeast have made it a foundational model for uncovering fundamental principles of chromatin regulation that are conserved across eukaryotes.

This recombinant rabbit monoclonal clone DEH-8 antibody is uniquely positioned for yeast-specific chromatin studies. It enables precise detection of H2B in Saccharomyces cerevisiae without ambiguity that can arise from cross-reactivity with mammalian histones, ensuring reliable interpretation of yeast chromatin data.

At the molecular level, yeast H2B forms a heterodimer with H2A and is incorporated into nucleosomes alongside H3 and H4 to form the core chromatin unit. This structure organizes genomic DNA into a compact and regulated format that controls accessibility to transcriptional and repair machinery.

Yeast H2B plays a central role in transcriptional regulation, particularly during transcription elongation. One of the most extensively studied modifications in yeast is H2B ubiquitination, which is required for proper histone H3 methylation at lysine 4 and lysine 79. This cross-talk between histone modifications highlights the importance of H2B as a regulatory hub in epigenetic signaling pathways.

In addition to transcription, yeast H2B is involved in DNA replication, chromatin assembly, and DNA damage response pathways. Its dynamic incorporation and removal from nucleosomes allow chromatin to adapt rapidly to changes in cellular conditions, including stress and environmental signaling.

Yeast chromatin systems have been instrumental in defining mechanisms of histone modification, nucleosome positioning, and chromatin remodeling. As such, detection of yeast H2B provides a critical entry point for studying these processes at a mechanistic level.

Unlike mammalian systems, yeast chromatin lacks certain histone variants and regulatory layers, making it an ideal model for dissecting core chromatin mechanisms without additional complexity. This specificity underscores the importance of using a yeast-optimized antibody for accurate detection.

At the cellular level, yeast Histone H2B localizes to the nucleus and is uniformly distributed across chromatin, reflecting its role as a structural component of the genome. Its presence is essential for maintaining chromatin integrity and proper gene regulation.

This antibody supports detection of yeast Histone H2B, enabling investigation of nucleosome structure, transcriptional regulation, chromatin remodeling, and epigenetic mechanisms in Saccharomyces cerevisiae, while providing a reliable tool for studying conserved chromatin processes in a simplified model system.

Application Notes

Optimal dilution of the Yeast Histone H2B Antibody / Chromatin Structure Antibody should be determined by the researcher.

Immunogen

A synthetic peptide specific to yeast Histone H2B (Yeast) was used as the immunogen for the Yeast Histone H2B Antibody / Chromatin Structure Antibody.

Storage

Store the Yeast Histone H2B antibody at -20oC.

Alternate Names

Yeast histone H2B antibody, Saccharomyces cerevisiae H2B antibody, yeast H2B chromatin antibody, yeast histone core antibody