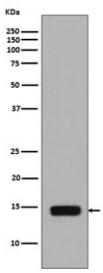
Yeast Phospho-Histone H2A Antibody pS129 / DNA Damage Response Chromatin Antibody [clone DEE-8] (RQ5093)

Catalog No.	Formulation	Size
RQ5093	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Bulk quote request

Availability	1-2 weeks
Species Reactivity	Yeast
Format	Purified
Host	Rabbit
Clonality	Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	DEE-8
Purity	Affinity purified
UniProt	P04912
Applications	Western Blot : 1:1000-1:2000
Limitations	This Phospho-Histone H2A antibody (pS129) is available for research use only.



Yeast Phospho-Histone H2A Antibody pS129 / DNA Damage Response Chromatin Antibody (clone DEE-8) for WB. Western blot analysis of yeast Histone H2A Ser129 phosphorylation (H2A pS129) in lysate from Saccharomyces cerevisiae treated with methyl methanesulfonate using Yeast Phospho-Histone H2A Antibody pS129 / DNA Damage Response Chromatin Antibody. A band is detected at the predicted molecular weight of approximately 14 kDa corresponding to phosphorylated Histone H2A, consistent with activation of DNA damage response signaling and chromatin remodeling following genotoxic stress.

Description

Phosphorylation of histone H2A at serine 129 in yeast represents a fundamental chromatin-based signaling event in response to DNA damage. Yeast Phospho-Histone H2A Antibody pS129 / DNA Damage Response Chromatin Antibody

(clone DEE-8) is designed to detect Histone H2A phosphorylated at serine 129, providing a highly specific marker of DNA damage-associated chromatin remodeling. Included within the Histone H2A antibodies collection, this antibody enables analysis of histone modification patterns and chromatin regulatory mechanisms involving H2A and its variants.

HIST1H2A antibody, also referred to as Histone H2A antibody and H2A pS129 antibody in the literature, recognizes a modification functionally analogous to gamma-H2AX phosphorylation in mammalian systems. This phosphorylation occurs rapidly following DNA double-strand breaks and serves as a critical signal for recruitment of DNA repair machinery.

This recombinant rabbit monoclonal clone DEE-8 antibody is uniquely positioned for studies of DNA damage signaling and genome stability. Upon DNA damage, phosphorylation at Ser129 spreads over large chromatin domains surrounding the lesion, forming signaling platforms that coordinate repair processes.

At the molecular level, H2A Ser129 phosphorylation facilitates recruitment of key DNA repair factors, including checkpoint proteins and chromatin remodeling complexes. It promotes chromatin relaxation, allowing access to damaged DNA and enabling efficient repair.

This modification plays a central role in maintaining genome integrity and is widely used as a marker of DNA damage in yeast systems. Its presence reflects activation of DNA damage response pathways rather than transcriptional regulation.

Unlike acetylation and methylation marks, which primarily regulate gene expression, phosphorylation at Ser129 is directly linked to cellular stress responses and DNA repair. It represents a rapid and reversible modification that signals genome instability.

At the cellular level, H2A Ser129 phosphorylation localizes to the nucleus and often forms distinct foci at sites of DNA damage. These foci correspond to regions where repair complexes accumulate and function.

This antibody supports detection of Ser129-phosphorylated Histone H2A, enabling investigation of DNA damage response, chromatin repair mechanisms, and cellular responses to genotoxic stress.

Application Notes

Optimal dilution of the Yeast Phospho-Histone H2A Antibody pS129 / DNA Damage Response Chromatin Antibody should be determined by the researcher.

Immunogen

A synthetic peptide specific to yeast Histone H2A (surrounding pS129) was used as the immunogen for the Yeast Phospho-Histone H2A Antibody pS129 / DNA Damage Response Chromatin Antibody.

Storage

Store the Phospho-Histone H2A antibody (pS129) at -20oC.

Alternate Names

Histone H2A Ser129 phosphorylation antibody, yeast gamma-H2A antibody, H2A pS129 DNA damage antibody, phospho histone H2A Ser129 antibody