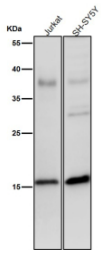
Phospho-Histone H3 (Ser28) Antibody / HIST1H3A [clone 32H09] (FY12176)

Catalog No.	Formulation	Size
FY12176	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	32H09
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	P68431
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry : 1:50-1:200 Immunocytochemistry/Immunofluorescence : 1:50-1:200
Limitations	This Phospho-Histone H3 (Ser28) antibody is available for research use only.



All lanes use the Phospho-Histone H3 (Ser28) antibody at 1:2K dilution for 1 hour at room temperature.

Description

Phospho-Histone H3 (Ser28) antibody detects histone H3 phosphorylated at serine 28, a dynamic modification associated with chromosome condensation and transcriptional regulation. Histone H3, encoded in part by HIST1H3A, is a core component of the nucleosome and fundamental to chromatin organization. Phosphorylation at Ser28 is catalyzed by

mitogen- and stress-activated kinases such as MSK1/2 and Aurora B kinase, and its regulation links extracellular signals to chromatin remodeling and cell cycle progression.

Research using Phospho-Histone H3 (Ser28) antibody has revealed two primary contexts for this modification. During mitosis and meiosis, phosphorylation at Ser28 contributes to chromatin condensation, working alongside Ser10 phosphorylation to facilitate chromosome segregation. In transcriptional regulation, Ser28 phosphorylation occurs in response to growth factors and stress stimuli, enhancing the expression of immediate-early genes involved in cell survival, differentiation, and stress adaptation.

Aberrant regulation of Ser28 phosphorylation has been implicated in cancer and developmental disorders. Elevated phospho-H3 (Ser28) levels are often found in tumors with high mitotic index, serving as a biomarker of proliferation and aggressiveness. Dysregulation of MSK and Aurora kinases, which control Ser28 phosphorylation, contributes to oncogenic transformation and therapy resistance. In developmental contexts, altered histone phosphorylation can disturb chromatin dynamics, leading to abnormal gene expression patterns.

Antibodies against phospho-H3 (Ser28) are validated for immunohistochemistry, immunofluorescence, flow cytometry, and western blot. These reagents allow detection of mitotic cells, quantification of proliferative activity, and assessment of chromatin modifications under various stimuli. Clone-based antibodies ensure specificity for the phosphorylated form, distinguishing it from total histone H3.

NSJ Bioreagents supplies this Phospho-Histone H3 (Ser28) antibody for studies in epigenetics, cancer biology, and chromatin regulation.

Application Notes

Optimal dilution of the Phospho-Histone H3 (Ser28) antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Phospho-Histone H3 (S28) was used as the immunogen for the Phospho-Histone H3 (Ser28) antibody.

Storage

Store the Phospho-Histone H3 (Ser28) antibody at -20oC.