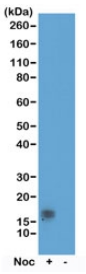
Phospho-Histone H3 Antibody (pThr11) / HIST1H3A Cell Cycle Checkpoint Antibody [clone RM164] (R20235)

Catalog No.	Formulation	Size
R20235-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug
R20235-25UG	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	RM164
Purity	Protein A purified from animal origin-free supernatant
UniProt	P84243
Gene ID	8350
Applications	Western blot: 0.5-2ug/ml ELISA: 0.2-1ug/ml
Limitations	This recombinant phospho-Histone H3 antibody is available for research use only.



Phospho-Histone H3 Antibody (pThr11) / HIST1H3A Cell Cycle Checkpoint Antibody for WB. Western blot analysis of HIST1H3A / Histone H3 Thr11 phosphorylation in acid extracts of human HeLa cells non-treated (-) and nocodazole-treated (+) using Phospho-Histone H3 Antibody (pThr11) / HIST1H3A Cell Cycle Checkpoint Antibody. A band is detected at the predicted molecular weight of approximately 15 kDa corresponding to Histone H3, with signal reflecting Thr11 phosphorylation associated with cell cycle regulatory signaling and checkpoint-linked chromatin modification rather than purely structural mitotic condensation.

Description

Histone H3 (HIST1H3A) is a core chromatin protein that integrates signaling pathways controlling gene expression and

cell cycle progression through site-specific phosphorylation events. Phosphorylation at threonine 11 represents a regulatory modification associated with transcriptional activation and checkpoint signaling during the G2 to M transition. Phospho-Histone H3 Antibody (pThr11) / HIST1H3A Cell Cycle Checkpoint Antibody is designed to detect this phosphorylation event within regulatory chromatin contexts. This antibody is part of a broader collection of Histone H3 antibodies used to study chromatin structure, histone modifications, and epigenetic regulation.

HIST1H3A antibody, also referred to as Histone H3 antibody and H3T11ph antibody in the literature, recognizes a phosphorylation site linked to cell cycle-dependent transcriptional programs and DNA damage response pathways. Unlike Thr3 phosphorylation, which is centromere-restricted, or Ser10 phosphorylation, which marks global mitosis, Thr11 phosphorylation reflects regulatory signaling events that coordinate gene expression with cell cycle progression.

This Phospho-Histone H3 Antibody (pThr11) is uniquely positioned for studies of checkpoint regulation and transcriptional control. Thr11 phosphorylation has been associated with activation of genes required for mitotic entry as well as signaling pathways that monitor genomic integrity, providing a bridge between chromatin state and cell cycle control mechanisms.

At the molecular level, Thr11 phosphorylation influences recruitment of transcriptional regulators and chromatin-modifying complexes, contributing to activation of specific gene expression programs. It plays a role in coordinating cellular responses to stress and DNA damage with progression through the cell cycle.

In western blot applications, the antibody detects Histone H3 at approximately 15 kDa, with signal reflecting phosphorylation-dependent regulation of chromatin. Detection can be used to assess changes in checkpoint signaling and transcriptional activation within cell populations.

At the cellular level, Thr11 phosphorylation localizes to the nucleus and is associated with chromatin regions undergoing regulatory activation rather than strictly condensed mitotic chromatin. This provides a distinct biological signature compared to mitosis-dominant phosphorylation sites.

This antibody supports detection of Thr11-phosphorylated Histone H3, enabling investigation of cell cycle checkpoints, transcriptional regulation, and chromatin-mediated signaling pathways involved in maintaining genomic stability.

Application Notes

The stated application concentrations are suggested starting points. Titration of the Phospho-Histone H3 Antibody (pThr11) / HIST1H3A Cell Cycle Checkpoint Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A phospho-peptide corresponding to phospho-Histone H3 (Thr11) was used as the immunogen for this Phospho-Histone H3 Antibody (pThr11) / HIST1H3A Cell Cycle Checkpoint Antibody.

Storage

Store the recombinant phospho-Histone H3 antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).

Alternate Names

Histone H3 Thr11 phosphorylation antibody, H3T11ph checkpoint marker antibody, phospho-H3 Thr11 antibody, cell cycle regulation antibody

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