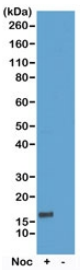
Phospho-Histone H3 Antibody (pThr6) / HIST1H3A Epigenetic Regulation Antibody [clone RM160] (R20234)

Catalog No.	Formulation	Size
R20234-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug
R20234-25UG	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	RM160
Purity	Protein A purified from animal origin-free supernatant
UniProt	P84243
Gene ID	8350
Applications	Western Blot : 0.1-1ug/ml ELISA : 0.2-1ug/ml
Limitations	This recombinant phospho-Histone H3 antibody is available for research use only.



Phospho-Histone H3 Antibody (pThr6) / HIST1H3A Epigenetic Regulation Antibody for WB. Western blot analysis of HIST1H3A / Histone H3 Thr6 phosphorylation in acid extracts of human HeLa cells non-treated (-) and nocodazole-treated (+) using Phospho-Histone H3 Antibody (pThr6) / HIST1H3A Epigenetic Regulation Antibody. A band is detected at the predicted molecular weight of approximately 15 kDa corresponding to Histone H3, with signal reflecting Thr6 phosphorylation associated with chromatin regulatory states and epigenetic modulation rather than exclusively mitotic enrichment.

Description

Histone H3 (HIST1H3A) is a central component of nucleosomes that undergoes diverse post-translational modifications controlling chromatin structure and gene expression. Phosphorylation at threonine 6 represents a regulatory modification

associated with epigenetic signaling and transcriptional control. Phospho-Histone H3 Antibody (pThr6) / HIST1H3A Epigenetic Regulation Antibody is designed to detect this modification within dynamically regulated chromatin environments. 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 H3T6ph antibody in the literature, recognizes a phosphorylation site that participates in crosstalk with neighboring histone marks, particularly methylation at lysine residues. Unlike mitosis-restricted sites such as Ser10 or Thr3, Thr6 phosphorylation is involved in modulating transcriptional activity and chromatin accessibility in response to cellular signaling pathways.

This Phospho-Histone H3 Antibody (pThr6) is uniquely positioned for studies of epigenetic regulation and chromatin remodeling rather than purely mitotic processes. Thr6 phosphorylation has been linked to regulation of transcription factor recruitment and hormone-responsive gene expression, providing a functional connection between signaling pathways and chromatin state.

At the molecular level, Thr6 phosphorylation influences interactions between histone H3 and chromatin-associated proteins, affecting the balance between active and repressive chromatin states. This modification can alter the recruitment of regulatory complexes, contributing to dynamic changes in gene expression programs.

In western blot applications, the antibody detects Histone H3 at approximately 15 kDa, with signal corresponding to phosphorylated chromatin within the sample. Unlike classical mitotic markers, signal intensity reflects regulated chromatin states that may occur outside of mitosis, supporting broader applications in transcriptional and epigenetic studies.

At the cellular level, Thr6 phosphorylation localizes to the nucleus and is associated with chromatin regions undergoing regulatory transitions. This distribution distinguishes it from mitosis-specific phosphorylation events and supports its use in studying chromatin dynamics across different cellular states.

This antibody supports detection of Thr6-phosphorylated Histone H3, enabling investigation of epigenetic regulation, chromatin remodeling, and transcriptional control mechanisms in response to cellular signaling.

Application Notes

The stated application concentrations are suggested starting points. Titration of the Phospho-Histone H3 Antibody (pThr6) / HIST1H3A Epigenetic Regulation Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A phospho-peptide corresponding to phospho-Histone H3 (Thr6) was used as the immunogen for this Phospho-Histone H3 Antibody (pThr6) / HIST1H3A Epigenetic Regulation 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 Thr6 phosphorylation antibody, H3T6ph chromatin regulation antibody, phospho-H3 Thr6 antibody, histone modification antibody