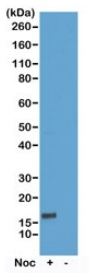
Recombinant phospho-Histone H3 Antibody (pThr6) [clone RM160] (R20234)

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	All Species
Format	Purified
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.



Western blot test of acid extracts of HeLa cells treated or non-treated with Nocodazole, using recombinant phospho-Histone H3 antibody at 0.1 ug/ml, showed a band of Histone H3 phosphorylated at Threonine 6 in HeLa cells.

Description

The Recombinant phospho-Histone H3 antibody is a recombinant reagent that specifically recognizes phosphorylation at threonine 6 (pThr6) of histone H3. Histone H3 is a fundamental chromatin protein that packages DNA into nucleosomes and provides a platform for an array of post-translational modifications. Among these, phosphorylation events at distinct

residues of H3 serve as critical markers for different phases of the cell cycle and transcriptional regulation. Phosphorylation at Thr6 is less extensively studied than Ser10 or Thr3, but evidence suggests that this modification plays a specialized role in coordinating mitotic progression and in modulating the function of adjacent modifications on the H3 tail. The Recombinant phospho-Histone H3 antibody enables precise analysis of this site, supporting research into chromatin regulation and cell division.

The amino-terminal tail of histone H3 is a hotspot for modifications, including acetylation, methylation, and phosphorylation. Phosphorylation of Thr6 is mediated by kinases such as protein kinase C and Aurora family kinases, depending on the cellular context. This site is positioned near lysine 4 (K4), a residue that is commonly methylated in association with transcriptional activation. The addition of a phosphate group at Thr6 can influence the binding of transcriptional regulators to H3K4me3, thereby connecting phosphorylation at Thr6 with gene expression programs. This functional interplay highlights the importance of site-specific histone modifications in shaping epigenetic outcomes.

In experimental applications, the Recombinant phospho-Histone H3 antibody is widely used in western blotting to detect proteins carrying the pThr6 modification. In immunofluorescence, it reveals nuclear staining patterns that can shift during the cell cycle, providing insight into mitotic regulation. In chromatin immunoprecipitation (ChIP) assays, the antibody selectively enriches genomic regions associated with pThr6-H3, facilitating studies of its influence on transcription and chromatin architecture. Recombinant production ensures lot-to-lot consistency, reducing variability that can affect polyclonal antibodies raised against phospho-epitopes.

This antibody is especially valuable in studies of transcriptional control, where the proximity of Thr6 phosphorylation to other histone modifications may alter recruitment of chromatin remodeling complexes. It is also relevant in cancer biology, as dysregulated histone phosphorylation is frequently associated with abnormal gene expression and uncontrolled proliferation. Synonym phrases such as recombinant pThr6-H3 antibody and recombinant phospho-Thr6 histone H3 antibody improve accessibility for researchers searching under alternate names.

By providing validated and reproducible detection, the Recombinant phospho-Histone H3 antibody expands the toolkit available for dissecting site-specific histone phosphorylation. NSJ Bioreagents supplies this antibody with rigorous quality control, giving researchers confidence in applications including western blotting, immunofluorescence, and ChIP. With its unique specificity for Thr6 phosphorylation, the Recombinant phospho-Histone H3 antibody is an essential reagent for exploring epigenetic mechanisms at the interface of chromatin dynamics and transcriptional regulation.

This recombinant phospho-Histone H3 antibody reacts to Histone H3 phosphorylated at Threonine 6. No cross reactivity with other phosphorylated histones

Application Notes

The stated application concentrations are suggested starting points. Titration of the recombinant phospho-Histone H3 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 recombinant phospho-Histone H3 antibody.

Storage

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