

# Anti-Histone H2B (Ser-36), Phosphospecific Antibody

Catalog # AN1811

## Product Information

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<b>Application</b>	WB
<b>Primary Accession</b>	<a href="#">P33778</a>
<b>Host</b>	Rabbit
<b>Clonality</b>	Rabbit Polyclonal
<b>Isotype</b>	IgG
<b>Calculated MW</b>	13950

## Additional Information

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<b>Gene ID</b>	3018
<b>Other Names</b>	HIST1H2BB, H2BFF, Histone H2B type1B, H2B/f

<b>Target/Specificity</b>	The nucleosome is a protein complex consisting of four core histones (H2A, H2B, H3, and H4). Two molecules of each histone forms an octamer that makes up the nucleosome. DNA wraps around repeating nucleosome units to generate chromatin structures. The structure of chromatin determines the accessibility to transcription factors. Post-translational modification of the amino-terminal tail of histones in nucleosomes alters chromatin structure to promote or inhibit transcription. Complex alterations in acetylation, methylation, ubiquitination, and/or phosphorylation determine the chromatin structural changes that occur during specific phases of the cell cycle or in response to cell stimuli. One mode of regulating histone H2B activity is through phosphorylation in the amino terminal region. Important sites of phosphorylation include Ser-14, Ser-32, and Ser-36. AMPK phosphorylates Ser-36 on histone H2B during cell stress leading to increased transcription and cell survival, while ectopic expression of an unphosphorylatable histone H2B during cell stress reduces transcription of AMPK-dependent genes and lowers cell survival.
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<b>Dilution</b>	WB~~1:1000
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<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
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<b>Precautions</b>	Anti-Histone H2B (Ser-36), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
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<b>Shipping</b>	Blue Ice
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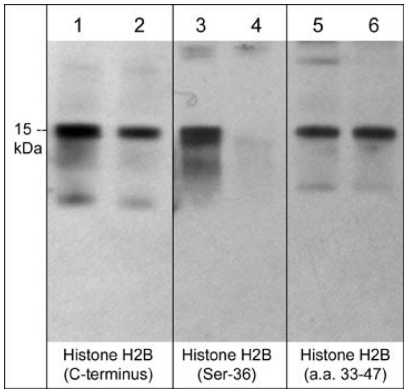
## Background

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The nucleosome is a protein complex consisting of four core histones (H2A, H2B, H3, and H4). Two molecules of each histone forms an octamer that makes up the nucleosome. DNA wraps around repeating nucleosome units to generate chromatin structures. The structure of chromatin determines the accessibility

to transcription factors. Post-translational modification of the amino-terminal tail of histones in nucleosomes alters chromatin structure to promote or inhibit transcription. Complex alterations in acetylation, methylation, ubiquitination, and/or phosphorylation determine the chromatin structural changes that occur during specific phases of the cell cycle or in response to cell stimuli. One mode of regulating histone H2B activity is through phosphorylation in the amino terminal region. Important sites of phosphorylation include Ser-14, Ser-32, and Ser-36. AMPK phosphorylates Ser-36 on histone H2B during cell stress leading to increased transcription and cell survival, while ectopic expression of an unphosphorylatable histone H2B during cell stress reduces transcription of AMPK-dependent genes and lowers cell survival.

## Images



Western blot analysis of human Jurkat cells treated with calyculin A (100 nM) for 30 min. (lanes 1, 3, & 5) then the blots were treated with lambda phosphatase (lanes 2, 4, & 6). The blots were probed with anti-Histone H2B (C-terminus) (lanes 1 & 2), anti-Histone H2B (Ser-36) (lanes 3 & 4), and anti-Histone H2B (a.a. 33-47) (lanes 5 & 6).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.