

Anti-Histone H2B (C-terminus) Antibody

Catalog # AN1809

Specification

Anti-Histone H2B (C-terminus) Antibody - Product Information

ApplicationWBPrimary AccessionP33778ReactivityBovine, Chicken, DrosophilaHostRabbitClonalityRabbit PolyclonalIsotypeIgGCalculated MW13950

Anti-Histone H2B (C-terminus) Antibody - Additional Information

Gene ID Other Names HIST1H2BB, H2BFF, Histone H2B type1B, H2B/f

Target/Specificity

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, ubiquination, 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.

3018

Dilution WB~~1:1000

Storage

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.

Precautions

Anti-Histone H2B (C-terminus) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping Blue Ice



Anti-Histone H2B (C-terminus) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Anti-Histone H2B (C-terminus) Antibody - 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).



Immunocytochemical labeling of Histone H2B in methanol and acetone fixed rat A7r5 cells. The cells were labeled with rabbit polyclonal Histone H2B (C-terminus) antibody (HP4291), then the antibody was detected using appropriate secondary antibody conjugated to DyLight® 594.

Anti-Histone H2B (C-terminus) Antibody - Background



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, ubiquination, 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.