abcam

Product datasheet

Recombinant Human Histone H2B protein ab92409

3 图像

描述

产品名称 重组人Histone H2B蛋白

纯**度** >= 95 % SDS-PAGE.

表达系统 Escherichia coli

蛋白长度 Full length protein

无动物成分 No

性质 Recombinant

种属 Human

技术指标

Our Abpromise guarantee covers the use of ab92409 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应**用** Western blot

Functional Studies

形式 Liquid

制备和贮存

稳定性和存储 Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

常规信息

相关性

Core component of nucleosome. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a complex set of post-translational modifications of histones, also called histone code, and nucleosome remodeling. Subunit structure The nucleosome is a histone octamer containing two molecules each of H2A, H2B, H3 and H4 assembled in one H3-H4 heterotetramer and two H2A-H2B heterodimers. The octamer wraps approximately 147 bp of DNA. Post-translational modification Monoubiquitination at Lys-35

(H2BK34Ub) by the MSL1/MSL2 dimer is required for histone H3 'Lys-4' (H3K4me) and 'Lys-79' (H3K79me) methylation and transcription activation at specific gene loci, such as HOXA9 and MEIS1 loci. Similarly, monoubiquitination at Lys-121 (H2BK120Ub) by the RNF20/40 complex gives a specific tag for epigenetic transcriptional activation and is also prerequisite for histone H3 'Lys-4' and 'Lys-79' methylation. It also functions cooperatively with the FACT dimer to stimulate elongation by RNA polymerase II. H2BK120Ub also acts as a regulator of mRNA splicing: deubiquitination by USP49 is required for efficient cotranscriptional splicing of a large set of exons. Phosphorylation at Ser-37 (H2BS36ph) by AMPK in response to stress promotes transcription. Phosphorylated on Ser-15 (H2BS14ph) by STK4/MST1 during apoptosis; which facilitates apoptotic chromatin condensation. Also phosphorylated on Ser-15 in response to DNA double strand breaks (DSBs), and in correlation with somatic hypermutation and immunoglobulin class-switch recombination. GlcNAcylation at Ser-113 promotes monoubiquitination of Lys-121. It fluctuates in response to extracellular glucose, and associates with transcribed genes. Crotonylation (Kcr) is specifically present in male germ cells and marks testis-specific genes in post-meiotic cells, including X-linked genes that escape sex chromosome inactivation in haploid cells. Crotonylation marks active promoters and enhancers and confers resistance to transcriptional repressors. It is also associated with post-meiotically activated genes on autosomes.

细胞定位

Nuclear

图片



Western blot - Recombinant Human Histone H2B protein (ab92409)

Anti-Histone H2B antibody - ChIP Grade (<u>ab1790</u>) at 0.1 μg/ml + Recombinant Human Histone H2B protein (ab92409) at 0.01 μg

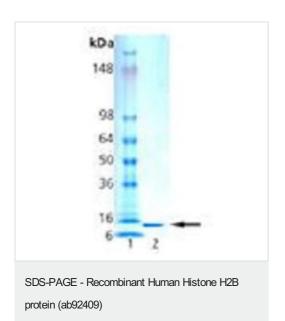
Secondary

Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

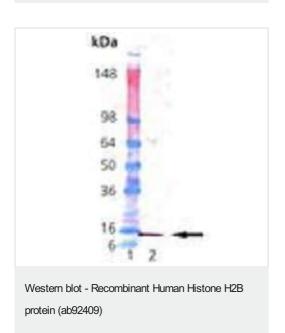
Developed using the ECL technique.

Performed under reducing conditions.

Exposure time: 2 minutes



SDS-PAGE Analysis: **Lane 1:** MW Marker; **Lane 2**: 1.0 µg Human Histone H2B Protein (ab92409).



Western Blot Analysis. **Lane 1:** MW Marker; **Lane 2**: 100 ng Human Histone H2B Protein (ab92409) probed with Histone H2B pAb.

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