SANTA CRUZ BIOTECHNOLOGY, INC.

Histone H2A (H-124): sc-10807

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The Power to Question

BACKGROUND

Eukaryotic histones are basic and water soluble nuclear proteins that form hetero-octameric nucleosome particles by wrapping 146 base pairs of DNA sequentially in a left-handed super-helical turn to form chromosomal fiber. Two molecules of each of the four core histones (H2A, H2B, H3 and H4) form the octamer, which is comprised of two H2A-H2B dimers and two H3-H4 dimers, creating two nearly symmetrical halves by tertiary structure. More than 80% of nucleosomes contain the linker Histone H1, derived from an intronless gene, that interacts with linker DNA between nucleosomes and mediates compaction into higher order chromatin. Histones are subject to posttranslational modification by enzymes primarily on their N-terminal tails, but also in their globular domains. Such modifications include methylation, citrullination, acetylation, phosphorylation, sumoylation, ubiquitination and ADP-ribosylation.

REFERENCES

1. Hake, S.B., et al. 2006. Histone H3 variants and their potential role in indexing mammalian genomes: the "H3 barcode hypothesis". Proc. Natl. Acad. Sci. USA 103: 6428-6435.
2. Nightingale, K.P., et al. 2006. Histone modifications: signalling receptors and potential elements of a heritable epigenetic code. Curr. Opin. Genet. Dev. 16: 125-136.

SOURCE

Histone H2A (H-124) is a rabbit polyclonal antibody raised against amino acids 7-130 of Histone H2A of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Histone H2A (H-124) is recommended for detection of Histone H2A of mouse, rat, human, *Drosophila, Xenopus,* zebrafish and *C. elegans* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Histone H2A (H-124) is also recommended for detection of Histone H2A in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of Histone H2A: 16 kDa.

Molecular Weight of ubiquitylated Histone H2A: 24 kDa.

Positive Controls: Mouse placenta extract: sc-364247 or rat placenta extract: sc-364808.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SELECT PRODUCT CITATIONS

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9. Ferretti, E., et al. 2005. Expression, regulation, and function of paired-box gene 8 in the human placenta and placental cancer cell lines. Endocrinology 146: 4009-4015.
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15. Huo, L.R., et al. 2010. Identification of differentially expressed transcripts and translatants targeted by knock-down of endogenous PCBP1. Biochim. Biophys. Acta 1804: 1954-1964.

RESEARCH USE

For research use only, not for use in diagnostic procedures.