SANTA CRUZ BIOTECHNOLOGY, INC.

# Histone H2A (N-15): sc-8647

SANTA CRUZ BIOTECHNOLOGY

*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. Hohmann, P. 1983. Phosphorylation of H1 histones. Mol. Cell Biochem. 57: 81-92.
2. Doenecke, D., et al. 1988. The H1 and core histone subtypes: differential gene expression and varied primary structures. Adv. Enzyme Regul. 27: 107-120.
3. Lewin, B. 1990. GENES IV. Oxford: Oxford University Press, 411-412.
4. Nilsson, P., et al. 1992. DNA binding of Histone H1 is modulated by nucleotides. FEBS Lett. 313: 67-70.
5. Roth, S.Y., et al. 1992. Chromatin condensation: does Histone H1 dephosphorylation play a role? Trends Biochem. 17: 93-98.
6. Wolffe, A.P. 1997. Histone H1. Int. J. Biochem. Cell Biol. 29: 1463-1466.
7. Wolffe, A.P., et al. 1997. What do linker histones do in chromatin? Bioessays 19: 249-255.
8. Gao, B., et al. 1998. Histone H1 isoforms purified from rat liver bind non-specifically to the nuclear factor 1 recognition sequence and serve as generalized transcriptional repressors. Mol. Cell Biochem. 178: 187-196.


## SOURCE

Histone H2A (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus 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.

Blocking peptide available for competition studies, sc-8647 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

Histone H2A (N-15) is recommended for detection of Histone H2A of mouse, rat, human and *Xenopus laevis* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

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

## PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.