SANTA CRUZ BIOTECHNOLOGY, INC.

Histone H2A.Bbd (C-17): sc-69567

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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 in a left-handed super-helical turn sequentially to form chromosomal fibers. Two molecules of each of the four core Histones (Histone H2A, H2B, H3, and H4) form the octamer, which consists of two H2A-H2B dimers and two H3-H4 dimers that are nearly symmetrical by tertiary structure. Over 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. Histone H2A.Bbd (Histone H2A Barr body-deficient), also known as Histone H2A-Bbd type 2/3, is a 115 amino acid protein that localizes to the nucleus and exists as an atypical Histone H2A which can replace conventional H2As in some nucleosomes. Unlike most Histones, Histone H2A.Bbd lacks the conserved residues that are necessary for post-translational modification and is, therefore, not susceptible to phosphorylation or glycosylation.

REFERENCES

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3. Chadwick, B.P. and Willard, H.F. 2001. A novel chromatin protein, distantly related to histone H2A, is largely excluded from the inactive X chromosome. J. Cell Biol. 152: 375-384.
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STORAGE

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

RESEARCH USE

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

CHROMOSOMAL LOCATION

Genetic locus: H2AFB3 (human) mapping to Xq28.

SOURCE

Histone H2A.Bbd (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Histone H2A.Bbd 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-69567 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-69567 X, 200 µg/0.1 ml.

APPLICATIONS

Histone H2A.Bbd (C-17) is recommended for detection of Histone H2A.Bbd of human 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).

Suitable for use as control antibody for Histone H2A.Bbd siRNA (h): sc-75261, Histone H2A.Bbd shRNA Plasmid (h): sc-75261-SH and Histone H2A.Bbd shRNA (h) Lentiviral Particles: sc-75261-V.

Histone H2A.Bbd (C-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Histone H2A.Bbd: 17 kDa.

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.

PROTOCOLS

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