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- Diagnostik & molekulare Diagnostik
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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

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- Mindermengenzuschlag
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- Gefahrgutzuschlag
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SANTA CRUZ BIOTECHNOLOGY, INC.

Histone H1 (AE-4): sc-8030

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 in a left-handed super-helical turn sequentially to form chromosomal fiber. Two molecules of each of the four core histones (H2A, H2B, H3, and H4) form the octamer; formed of two H2A-H2B dimers and two H3-H4 dimers, forming two nearly symmetrical halves 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. 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.

SOURCE

Histone H1 (AE-4) is a mouse monoclonal antibody raised against leukemia biopsy cells of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Histone H1 (AE-4) is available conjugated to agarose (sc-8030 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to either phycoerythrin (sc-8030 PE), fluorescein (sc-8030 FITC), Alexa Fluor® 488 (sc-8030 AF488), Alexa Fluor® 546 (sc-8030 AF546), Alexa Fluor® 594 (sc-8030 AF594) or Alexa Fluor® 647 (sc-8030 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-8030 AF680) or Alexa Fluor® 790 (sc-8030 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, Histone H1 (AE-4) is available conjugated to biotin (sc-8030 B), 200 µg/ml, for WB, IHC(P) and ELISA; and to either TRITC (sc-8030 TRITC, 200 µg/ml) or Alexa Fluor® 405 (sc-8030 AF405), 100 µg/2 ml, for IF, IHC(P) and FCM.

APPLICATIONS

Histone H1 (AE-4) is recommended for detection of Histone H1 of broad species 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Histone H1: 32-33 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, Jurkat nuclear extract: sc-2132 or A-431 whole cell lysate: sc-2201.

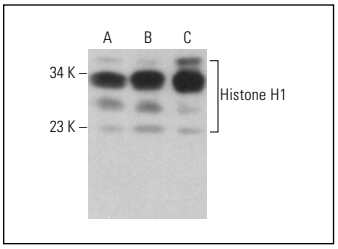
STORAGE

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

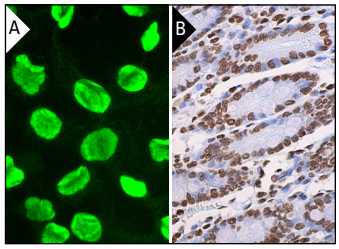
RESEARCH USE

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

DATA



Histone H1 (AE-4): sc-8030. Western blot analysis of Histone H1 expression in HL-60 (**A**) and A-431 (**B**) whole cell lysates and Jurkat nuclear extract (**C**).



Histone H1 (AE-4): sc-8030. Immunofluorescence staining of formalin-fixed A-431 cells showing nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing nuclear staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Kim, H.S., et al. 2000. Pepsin-mediated processing of the cytoplasmic Histone H2A to strong antimicrobial peptide Buforin I1. J. Immunol. 165: 3268-3274.
2. Cui, H., et al. 2011. Heparanase enhances nerve-growth-factor-induced PC12 cell neuritogenesis via the p38 MAPK pathway. Biochem. J. 440: 273-282.
3. Notomi, T., et al. 2012. Identification of two-pore channel 2 as a novel regulator of osteoclastogenesis. J. Biol. Chem. 287: 35057-35064.
4. Czeisler, C. and Mikawa, T. 2013. Microtubules coordinate VEGFR2 signaling and sorting. PLoS ONE 8: e75833.
5. Beharry, A.W., et al. 2014. HDAC1 activates FoxO and is both sufficient and required for skeletal muscle atrophy. J. Cell Sci. 127: 1441-1453.
6. Mues, M.B., et al. 2015. Dynasore disrupts trafficking of herpes simplex virus proteins. J. Virol. 89: 6673-6684.
7. Liu, C.C., et al. 2016. Suspension survival mediated by PP2A-Stat3-Col XVII determines tumour initiation and metastasis in cancer stem cells. Nat. Commun. 7: 11798.
8. Zhang, J.T., et al. 2017. Defective CFTR leads to aberrant β-catenin activation and kidney fibrosis. Sci. Rep. 7: 5233.
9. Rigalli, J.P., et al. 2018. The pregnane X receptor (PXR) and the nuclear receptor corepressor 2 (NCoR2) modulate cell growth in head and neck squamous cell carcinoma. PLoS ONE 13: e0193242.
10. Zhang, K., et al. 2019. Phosphorylation of forkhead protein FoxO1 at Ser253 regulates glucose homeostasis in mice. Endocrinology 160: 1333-1347.

PROTOCOLS

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