

Histone H1⁰ (h): 293 Lysate: sc-110768

BACKGROUND

Histone H1⁰ (H1 histone family, member 0) is a lysine rich member of the H1 family of linker histones. The H1 family of proteins interacts with linker DNA between nucleosomes and mediates compaction into higher order chromatin. Histone H1⁰ is a unique variant, considered a replacement linker histone, which is expressed and incorporated into chromatin in the absence of DNA replication. In contrast, the majority of somatic H1 histones are replication dependent variants found in proliferating cells. Histone H1⁰ is expressed in cells that are in the terminal stages of differentiation or that have low rates of cell division. Unlike other differentiation-specific linker histones which demonstrate tissue and species-specific expression, Histone H1⁰ is widely expressed in many tissues in most vertebrates. Histone H1⁰ is derived from the intronless gene H1F0, in human, which has been mapped to chromosome 22q13.1. 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

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- Baxeianis, A.D. and Landsman, D. 1996. Histone sequence database: a compilation of highly-conserved nucleoprotein sequences. *Nucleic Acids Res.* 24: 245-247.
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- Khochbin, S. 2001. Histone H1 diversity: bridging regulatory signals to linker histone function. *Gene* 271: 1-12.
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- LocusLink Report (LocusID: 3008). <http://www.ncbi.nlm.nih.gov/LocusLink/>

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: H1F0 (human) mapping to 22q13.1.

PRODUCT

Histone H1⁰ (h): 293 Lysate represents a lysate of human Histone H1⁰ transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Histone H1⁰ (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive Histone H1⁰ antibodies. Recommended use: 10-20 µl per lane.

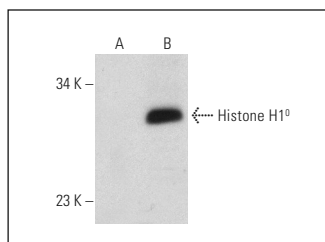
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

Histone H1⁰ (34): sc-56695 is recommended as a positive control antibody for Western Blot analysis of enhanced human Histone H1⁰ expression in Histone H1⁰ transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

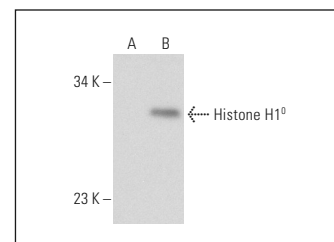
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Histone H1⁰ (34): sc-56695. Western blot analysis of Histone H1⁰ expression in non-transfected: sc-110760 (A) and human Histone H1⁰ transfected: sc-110768 (B) 293 whole cell lysates.



Histone H1⁰ (27): sc-56694. Western blot analysis of Histone H1⁰ expression in non-transfected: sc-110760 (A) and human Histone H1⁰ transfected: sc-110768 (B) 293 whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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