

Histone cluster 1 H1C (T-18): sc-247161

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. The Histone cluster 1 H1C gene is intronless and maps to a small histone gene cluster on human chromosome 6.

REFERENCES

1. Rupp, R.A., et al. 2005. Gene regulation by histone H1: new links to DNA methylation. *Cell* 123: 1178-1179.
2. Martin, C., et al. 2005. The diverse functions of histone lysine methylation. *Nat. Rev. Mol. Cell Biol.* 6: 838-849.
3. Gunjan, A., et al. 2005. Regulation of histone synthesis and nucleosome assembly. *Biochimie* 87: 625-635.
4. Bode, A.M., et al. 2005. Inducible covalent posttranslational modification of histone H3. *Sci. STKE* 2005: re4.
5. Bustin, M., et al. 2005. The dynamics of histone H1 function in chromatin. *Mol. Cell* 17: 617-620.
6. de la Cruz, X., et al. 2005. Do protein motifs read the histone code? *Bioessays* 27: 164-175.

CHROMOSOMAL LOCATION

Genetic locus: HIST1H1C (human) mapping to 6p22.2.

SOURCE

Histone cluster 1 H1C (T-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Histone cluster 1 H1C 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-247161 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Histone cluster 1 H1C (T-18) is recommended for detection of Histone cluster 1 H1C of human 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); non cross-reactive with other Histone cluster 1 H1 family members.

Suitable for use as control antibody for Histone cluster 1 H1C siRNA (h): sc-37970, Histone cluster 1 H1C shRNA Plasmid (h): sc-37970-SH and Histone cluster 1 H1C shRNA (h) Lentiviral Particles: sc-37970-V.

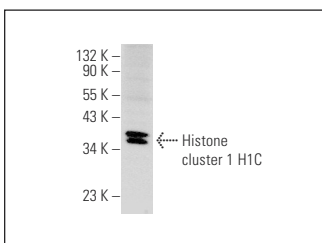
Molecular Weight of Histone cluster 1 H1C: 21 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Histone cluster 1 H1C (T-18): sc-247161. Western blot analysis of Histone cluster 1 H1C expression in Jurkat whole cell lysate.

RESEARCH USE

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

PROTOCOLS

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