

Histone H1X (G-19): sc-102596

BACKGROUND

Histone H1X is also known as H1FX (H1 histone family, member X) and is a 213 amino acid protein that is localized to the nucleus. Histone H1X belongs to the Histone H1/H5 family and is an H1 Histone, which are important in the process of condensing nucleosome chains into structures inside chromosomes. H1 Histones also regulate DNA repair and replication as well as gene expression. During interphase, Histone H1X accumulates in nucleoli in the G₁ phase and is evenly distributed throughout the nucleus during the S and G₂ phases of the cell cycle. During mitosis, Histone H1X is distributed along chromosomes, mostly on the chromosomal surface. Neuroendocrine cells and tumors possess large quantities of Histone H1X.

REFERENCES

1. Yamamoto, T., et al. 1996. Cloning of the cDNA encoding a novel subtype of histone H1. *Gene* 173: 281-285.
2. Online Mendelian Inheritance in Man, OMIM™. 1999. Johns Hopkins University, Baltimore, MD. MIM Number: 602785. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Happel, N., et al. 2005. Characterisation of human histone H1x. *Biol. Chem.* 386: 541-551.
4. Stoldt, S., et al. 2007. G₁ phase-dependent nucleolar accumulation of human histone H1x. *Biol. Cell* 99: 541-552.
5. Takata, H., et al. 2007. H1.X with different properties from other linker histones is required for mitotic progression. *FEBS Lett.* 581: 3783-3788.
6. Warneboldt, J., et al. 2008. Histone H1x is highly expressed in human neuroendocrine cells and tumours. *BMC Cancer* 8: 388.

CHROMOSOMAL LOCATION

Genetic locus: H1FX (human) mapping to 3q21.3.

SOURCE

Histone H1X (G-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Histone H1X 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-102596 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-102596 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.

RESEARCH USE

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

APPLICATIONS

Histone H1X (G-19) is recommended for detection of Histone H1X 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 family members.

Suitable for use as control antibody for Histone H1X siRNA (h): sc-78523, Histone H1X shRNA Plasmid (h): sc-78523-SH and Histone H1X shRNA (h) Lentiviral Particles: sc-78523-V.

Histone H1X (G-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

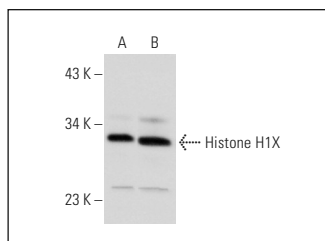
Molecular Weight of Histone H1X: 30 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136 or 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 H1X (G-19): sc-102596. Western blot analysis of Histone H1X expression in HEK293 (A) and Jurkat (B) whole cell lysates.

PROTOCOLS

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



Try **Histone H1X (E-5): sc-514856**, our highly recommended monoclonal alternative to Histone H1X (G-19).