

# Histone cluster 1 H3D (6H8): sc-134355

## 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, which is comprised of two H2A-H2B dimers and two H3-H4 dimers, forming two nearly symmetrical halves by tertiary structure. Histones are subject to posttranslational modification by enzymes primarily on their N-terminal tails, but also in their globular domains. Histone cluster 1 H3D (HIST1H3D), also known as H3FB, is a 136 amino acid member of the H3 histone family and is encoded by a gene located in the large histone gene cluster on chromosome 6p22.2.

## REFERENCES

1. Albig, W., et al. 1991. Isolation and characterization of two human H1 histone genes within clusters of core histone genes. *Genomics* 10: 940-948.
2. Albig, W., et al. 1997. Human histone gene organization: nonregular arrangement within a large cluster. *Genomics* 40: 314-322.

## CHROMOSOMAL LOCATION

Genetic locus: HIST1H3D (human) mapping to 6p22.2; Hist1h3f (mouse) mapping to 13 A3.1.

## SOURCE

Histone cluster 1 H3D (6H8) is a mouse monoclonal antibody raised against recombinant Histone cluster 1 H3D protein of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>3</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Histone cluster 1 H3D (6H8) is recommended for detection of Histone cluster 1 H3D of mouse, rat and 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), immunohistochemistry (including paraffin-embedded sections) (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 cluster 1 H3D siRNA (h): sc-105489, Histone cluster 1 H3D siRNA (m): sc-146006, Histone cluster 1 H3D shRNA Plasmid (h): sc-105489-SH, Histone cluster 1 H3D shRNA Plasmid (m): sc-146006-SH, Histone cluster 1 H3D shRNA (h) Lentiviral Particles: sc-105489-V and Histone cluster 1 H3D shRNA (m) Lentiviral Particles: sc-146006-V.

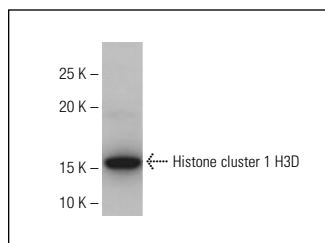
Molecular Weight of Histone cluster 1 H3D: 15 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

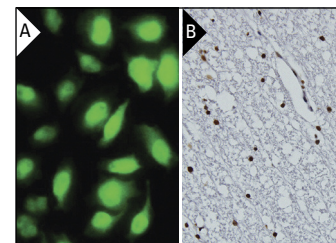
## RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



Histone cluster 1 H3D (6H8): sc-134355. Western blot analysis of Histone cluster 1 H3D expression in HeLa nuclear extract.



Histone cluster 1 H3D (6H8): sc-134355. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lateral ventricle wall tissue showing nuclear localization (B).

## SELECT PRODUCT CITATIONS

1. Zhou, R., et al. 2015. Tumor invasion and metastasis regulated by microRNA-184 and microRNA-574-5p in small-cell lung cancer. *Oncotarget* 6: 44609-44622.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.