SANTA CRUZ BIOTECHNOLOGY, INC.

# Hda1 (G-3): sc-365923

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

Remodeling of chromatin structure is believed to be a critical component of transcriptional regulation. A major source of remodeling is brought about by the acetylation of nucleosomal histones. Acetylation results in an allosteric change in the nucleosomal conformation and an increased accessibility of DNA to transcription factors. Conversely, the deacetylation of histones is associated with transcriptional silencing. Hda1, HDA2, HDA3, HDA4, HDA5, HDA6 and HDA7 have been identified as histone deacetylases in *C. elegans* and are homologous with histone deacetylase proteins in both yeast and mammalian systems. Histone deacetylase Hda1 (also known as Hda1 or N2819 in yeast), deacetylates Histone H2A, H2B, H3 and H4.

## REFERENCES


1. Qian, Y.W., Wang, Y.C., Hollingsworth, R.E., Jr., Jones, D., Ling, N. and Lee, E.Y. 1993. A retinoblastoma-binding protein related to a negative regulator of Ras in yeast. Nature 364: 648-652.
2. Qian, Y.W. and Lee, E.Y. 1995. Dual retinoblastoma-binding proteins with properties related to a negative regulator of Ras in yeast. J. Biol. Chem. 270: 25507-25513.
3. Rundlett, S.E., Carmen, A.A., Kobayashi, R., Bavykin, S., Turner, B.M. and Grunstein, M. 1996. Hda1 and RPD3 are members of distinct yeast histone deacetylase complexes that regulate silencing and transcription. Proc. Natl. Acad. Sci. USA 93: 14503-14508.
4. Carmen, A.A., Rundlett, S.E. and Grunstein, M. 1996. Hda1 and HDA3 are components of a yeast histone deacetylase (HDA) complex. J. Biol. Chem. 271: 15837-15844.
5. Pennisi, E. 1997. Opening the way to gene activity. Science 275: 155-156.
6. Guan, L.S., Rauchman, M. and Wang, Z.Y. 1998. Induction of Rb-associated protein (RbAp46) by Wilms' tumor suppressor WT1 mediates growth inhibition. J. Biol. Chem. 273: 27047-27050.


## SOURCE

Hda1 (G-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 682-713 near the C-terminus of Hda1 of *Saccharomyces cerevisiae* origin.

## PRODUCT

Each vial contains 200 µg $IgG_3$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-365923 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## 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

Hda1 (G-3) is recommended for detection of Hda1 of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:100, 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).

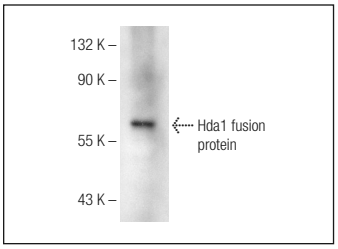
Molecular Weight of Hda1: 84 kDa.

Positive Controls: *S. cerevisiae* whole cell lysate.

## 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.

## DATA




Hda1 (G-3): sc-365923. Western blot analysis of yeast recombinant Hda1 fusion protein.

## SELECT PRODUCT CITATIONS


1. Zhen, X., Choi, H.S., Kim, J.H., Kim, S.L., Liu, R., Yun, B.S. and Lee, D.S. 2020. Machilin D, a lignin derived from *Saururus chinensis,* suppresses breast cancer stem cells and inhibits NFκB signaling. Biomolecules 10: 245.


## PROTOCOLS

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