SANTA CRUZ BIOTECHNOLOGY, INC.

HDA7 (Ce-87): sc-5554

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. RBA1 and RBA2 are the *C. elegans* homologs of RbAp46 and RBAp48, respectively. RbAp46 and RbAp48 are Rb and histone binding proteins and are components of the histone deacetylase complex.

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

HDA7 (Ce-87) is a rabbit polyclonal antibody raised against amino acids 33-119 mapping near the N-terminus of HDA7 of *Caenorhabditis elegans* origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

PROTOCOLS

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

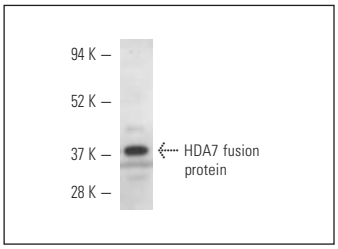
APPLICATIONS

HDA7 (Ce-87) is recommended for detection of HDA7 of *Caenorhabditis elegans* 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).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



HDA7 (Ce-87): sc-5554. Western blot analysis of *C. elegans* recombinant HDA7 fusion protein.

RESEARCH USE

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