DB071: HDAC1 (C19)

Background:

HDAC1, the mammalian homologue of the yeast transcriptional regulator Rpd3p, was first purified using a trapoxin affinity matrix (1). Trapoxin is a cyclotetrapeptide that inhibits histone deacetylation in vivo and also correlates with an increase in the acetylation levels of all four core histones (1&2). These data support a role for HDAC1 as a key histone deacetylase. The function of HDAC1 has been further refined as responsible for the deacetylation of lysine residues on the N-terminal region of the core histones H2A, H2B, H3 and H4 (3&4).

Origin:

HDAC1 (C19) is provided as an affinity purified rabbit polyclonal antibody, raised against a peptide mapping to the carboxy terminal domain of human HDAC1.

Product Details:

Each vial contains 200 µg/ml of affinity purified rabbit IgG, HDAC1 (C19) DB071, in 1 ml PBS containing 0.1 % sodium azide and 0.2% gelatin.

Competition Studies:

A blocking peptide is also available, DB071P, for use in competition studies. Each vial contains 100 µg of peptide in 0.5 ml PBS with 0.1% sodium azide and 100 µg BSA.

Specificity:

HDAC1 (C19) is recommended to detect mouse, rat, and human HDAC1 by western blotting. Recommended western blotting starting dilution 1:200.

Storage:

Store this product at 4º C, do not freeze. The product is stable for one year from the date of shipment.

References:

1. Taunton J, Hassig CA, Schreiber SL. 1996. A mammalian histone deacetylase related to the yeast transcriptional regulator Rpd3p. Science 272:408-411.
2. Hassig CA, Tong JK, Fleischer TC, Owa T, Grable PG, Ayer DE, Schreiber SL. 1998. A role for histone deacetylase activity in HDAC1-mediated transcriptional repression. PNAS 95(7):3519-3524.
3. Lopez-Rodas G, Brosch G, Georgieva EI, Sendra R, Franco L, Loidl P. 1993. Histone deacetylase. A key enzyme for the binding of regulatory proteins to chromatin. FEBS lett 317(3):175-180.
4. Johnson CA, White DA, Lavender JS, O'Neill LP, Turner BM. 2002. Human class I histone deacetylase complexes show enhanced catalytic activity in the presence of ATP and co-immunoprecipitated with ATP-dependent charperone protein Hsp-70.

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