# *DB072*: HDAC2 (C19)

## Background:

Histone deacetylases (HDACs) catalyze the removal of the acetyl modification on lysine residues of proteins, that includes the core nucleosomal histones H2A, H2B, H3, and H4 (1). HDACs together with HATs regulate the level of acetylation of the histones (1,2). The level of acetylation of nucleosomal histones plays a key regulatory role in the transcription of many genes (1,3). The repression of gene transcription is associated with the hypoacetylation of histones, while hyperacetylated histones are associated with the activation of transcription (1). Three classes of HDACs have been described and class I and II HDACs are structurally related. Class I HDACs consist of HDAC1, 2, 3, and 8. Class II HDACs consist of HDAC4, 5, 6, 7, 9, and 10. Class III HDACs are structurally unrelated to the human class I and II HDACs, and consist of homologues of the yeast Sir2 proteins (1).

## Origin:

HDAC2 (C19) is provided as an affinity purified rabbit polyclonal antibody, raised against a peptide mapping to the carboxy terminal domain of human HDAC2.

## Product Details:

Each vial contains 200 µg/ml of affinity purified rabbit IgG, HDAC2 (C19) DB072, in 1 ml PBS containing 0.1 % sodium azide and 0.2% gelatin.

## Competition Studies:

A blocking peptide is also available, DB072P, 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:

HDAC2 (C19) is recommended to detect mouse, rat, and human HDAC2 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. Richon VM and O'Brien JP. 2002. Histone Deacetylase Inhibitors: A New Class of Potential Therapeutic Agents for Cancer Research. Clinical Cancer Research 8(3): 662-664.
2. Lopez-Rodas G, Brosch G, Georgieva EI, Sendra R, Franco L and Loidl P. 1993. Histone deacetylase. A key enzyme for the binding of regulatory proteins to chromatin. FEBS Lett. 317(3): 175-180.
3. Riester D, Wegener D, Hildman C and Schwienhorst A. 2004. Members of the histone deacetylase superfamily differ in substrate specificity towards small synthetic substrates. Biochem Biophys Res Commun. 324(3): 116-1123.