HDAC1 (C-Terminus HIS-FLAG tag). Sf9 cells Active Enzyme

Background

Acetylation of the tail of histone is known to cause chromatin to adopt a more 'open' 3D conformation, allowing trans factors grerater access to DNA. Histone acetyltransferases (HATs), complexes interact with sequence-specific activator proteins and target specific genes. In addition to histones, HATs acetylate non-histone proteins, implicating them in a wide variety of regulartory roles for these enzymes. By comparison, histone deacetylation promotes a more 'closed' chromatin conformation and in general leads to repression of gene activity. Mammalian histone deacetylases are divided into three classes on the basis of their similarity to various the yeast deacetylases. Class I (HDACs 1, 2, 3 and 8) related to the yeast Rpd3-like proteins, class II (HDACs 4, 5, 6, 7, 9 and 10) related to yeast Hda1-like proteins and class III related to the yeast protein Sir2. Inhibitors of HDAC have enormous potential as cancer therapeutic agents.

Activity

Specific Activity: 390 pmol/min/µg.

Purity

>98% by SDS-PAGE

Applications

Ordering Information

Catalog Number
X1737E

Size
20 µg

Customer Storage
Product should be stored at -20°C.
Aliquot to avoid freeze/thaw cycles

Formulation
Provided in 25 mM Tris-HCl, pH 8.0, 130,mM NaCl, 0.05% Tween-20, 100µg/ml FLAGpeptise and 10% glycerol.

Ship Conditions
Ship on dry ice, freeze upon arrival

Stability
Stable for at least 6 months when stored as recommended.

Concentration
Lot specific, see vial

Source
Baculovirus infected Sf9 cells

Exalpha Biologicals, Inc. 2 Shaker Road, Bldg. B101 Shirley, MA 01464
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Assay Methods

Materials

Assay condition : 25 mM Tris/Cl, pH8.0, 137 mM NaCl, 2.7 mM KCl, 1 mM MgCl2, and 0.1 mg/ml BSA, 20 µM HDAC substrate and 4ng/µl HDAC1.
Incubation condition: 30 min at 37ºC.

Procedure

Step 1: Adding all reaction mixture to a low binding NUNC black plate (VWR catalog number 62408-936)
35 µl of HDAC assay buffer
5 µl of 1 mg/ml BSA
5 µl of 200 uM substrate
5.0 µl of HDAC1 (0.01 ug/ul)
Always add HDAC1 at the last.
Incubate at 37 ºC for 30 min.

Step 2: Stop the reaction
Add 50 µl of HDAC assay developer and incubate the plate at room temperature for 15 min.

Step 3: Read sample in a microtiter-plate reading fluorimeter capableof excitation at a wavelength in the range 350-380 nm and detection of emitted light in the range 440-460 nm.

References

Product Specific References

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