



human HDAC1 Active Enzyme

BACKGROUND

Acetylation of the tail of histone is known to cause chromatin to adopt a more 'open' 3D conformation, allowing trans factors greater 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 regulatory 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.

ORDERING INFORMATION

CATALOG NUMBER
X1737E

SIZE
50 µg

STORAGE CUSTOMER
Product should be stored at -70°C.
Aliquot to avoid freeze/thaw cycles

STABILITY
Products are stable for one year
from purchase when stored properly

SHIP CONDITIONS
Ship on dry ice, freeze upon arrival

FORMULATION
Provided in 50mM Tris (pH 8) solution
containing 138 mM NaCl, 10% glycerol

CONCENTRATION
Lot specific, see vial

SOURCE
Baculovirus infected Sf9 cells

ACTIVITY

20 U/µg. One unit = 1 pmol/min. Activity determined by

PURITY

>90% by SDS-PAGE

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, 100 µM HDAC substrate and 4 ng/ul HDAC1.

PROCEDURE

Incubation condition: 60 min at 30°C.

For research use only. Not for use in human diagnostics or therapeutics.

REFERENCES

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