abcam

Product datasheet

HDAC Activity Assay Kit (colorimetric) ab1432

55 References 2 图像

概述

产品名称	HDAC Activity Assay试剂盒(colorimetric)
检测方法	Colorimetric
检测类型	Quantitative
实验步骤	Multiple steps standard assay
种属反应性	**与反应:** Mammals
产品概述	Inhibition of histone deacetylases (HDACs) has been implicated in the modulation of transcription and the induction of apoptosis or differentiation in cancer cells. However, screening HDAC inhibitory compounds has proven to be difficult over the past due to the lack of convenient tools for analyzing HDAC activity. The new Colorimetric HDAC Activity Assay Kit ab1432 provides a fast and convenient colorimetric method that eliminates radioactivity, extractions, or chromatography, as used in the traditional assays. The new method requires only two easy steps, both performed on the same microtiter plate. First, the HDAC colorimetric substrate, which comprises an acetylated lysine side chain, is incubated with a sample containing HDAC activity (e.g., HeLa nuclear extract or your own samples). Deacetylation of the substrate sensitizes the substrate, so that, in the second step, treatment with the Lysine Developer produces a chromophore. The chromophore can be easily analyzed using an ELISA plate reader or spectrophotometer. The assay is well suited for high throughput screening applications.
说明	This product is manufactured by BioVision, an Abcam company and was previously called K331 HDAC Activity Colorimetric Assay Kit. K331-100 is the same size as the 96 test size of ab1432. Read the entire protocol (attached to the datasheet) before beginning the procedure. The HeLa extract should be refrozen immediately at -20 or -70°C after each use to avoid loss of activity. The Lysine Developer should be refrozen immediately at –20 or -70°C after each use or aliquotted for future use. This kit contains enough reagents for about 100 tests. If positive and negative controls are included, the kit provides sufficient reagents for 5 positive control assays with the HeLa Nuclear Extract and 5 Negative Control assays with the HDAC Inhibitor, Trichostatin A.
经测试应用	**适用于:** Functional Studies
平台	Microplate (12 x 8 well strips)

性能

存放说明 Store at -80°C. Please refer to protocols.

组件	96 tests
10X Assay Buffer XXX	1 x 1ml
Deacetylated Standard	1 x 20µl
Developer II	1 x 1ml
HDAC Inhibitor	1 x 10µl
HDAC Substrate I	1 x 500µl
HeLa Nuclear Extract	1 x 50µl

功能 Responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events. Histone deacetylases act via the formation of large multiprotein complexes. Deacetylates SP proteins, SP1 and SP3, and regulates their function. Component of the BRG1-RB1-HDAC1 complex, which negatively regulates the CREST-mediated transcription in resting neurons. Upon calcium stimulation, HDAC1 is released from the complex and CREBBP is recruited, which facilitates transcriptional activation. Deacetylates TSHZ3 and regulates its transcriptional repressor activity. Deacetylates 'Lys-310' in RELA and thereby inhibits the transcriptional activity of NF-kappa-B. Component a RCOR/GFI/KDM1A/HDAC complex that suppresses, via histone deacetylase (HDAC) recruitment, a number of genes implicated in multilineage blood cell development.

组织特异性 Ubiquitous, with higher levels in heart, pancreas and testis, and lower levels in kidney and brain.

序列相似性 Belongs to the histone deacetylase family. HD type 1 subfamily.

翻译后修饰 Sumoylated on Lys-444 and Lys-476; which promotes enzymatic activity. Desumoylated by SENP1.
Phosphorylation on Ser-421 and Ser-423 promotes enzymatic activity and interactions with NuRD and SIN3 complexes. Phosphorylated by CDK5.
Ubiquitinated by CHFR, leading to its degradation by the proteasome (By similarity).
Ubiquitinated by KCTD11, leading to proteasomal degradation.

细胞定位 Nucleus.

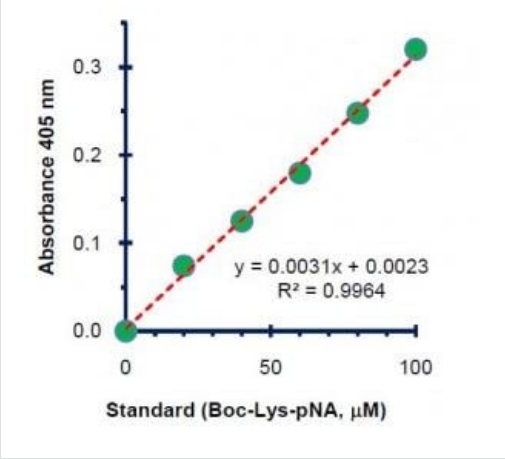
应用

The Abpromise guarantee Abpromise™承诺保证使用ab1432于以下的经测试应用

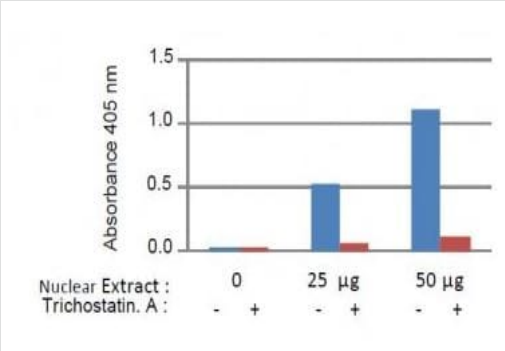
"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
Functional Studies		Use at an assay dependent concentration.

图片



HDAC Activity Colorimetric Assay Kit Standard Curve



HDAC Activity Colorimetric Assay Kit Activity Assay

Different amount of nuclear extract (NE) were tested following kit protocol in the presence and absence of HDAC Inhibitor (Incubated for 4 hrs).

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