

HDAC Cell-Based Assay Kit

Cat. No. Kit-0426 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

HDAC Cell-Based Assay Kit is a fluorescence-based method for assaying the activity of HDAC .

Description

Nucleosomes, which fold chromosomal DNA, contain two molecules each of the core histones H2A, H2B, H3, and H4. Almost two turns of DNA are wrapped around this octameric core, which represses transcription. The histone amino termini extend from the core, where they can be modified post-translationally by acetylation, phosphorylation, ubiquitination, and methylation, affecting their charge and function. Acetylation of the ε-amino groups of specific histone lysines is catalyzed by histone acetyltransferases (HATs) and correlates with an open chromatin structure and gene activation. Histone deacetylases (HDACs) catalyze the hydrolytic removal of acetyl groups from histone lysine residues and correlates with chromatin condensation and transcriptional repression. Therefore, HDAC inhibition results in transcriptional activation through the conformational relaxation of DNA. Changes in the transcription of key genes has linked HDAC inhibitors to blocking angiogenesis and cell cycling, and promoting apoptosis and differentiation. By targeting these key components of tumor proliferation, HDAC inhibitors are currently being explored as potential anticancer agents.

Usage

For research use only (RUO)

Storage

The kit will perform as specified if components are stored as directed below and used before the expiration date indicated on the outside of the box.
 HDAC Assay Buffer (10X) -20°C
 Nonidet P-40 Assay Reagent (10%) Room Temperature
 HDAC

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Deacetylated Standard -20°C HDAC1 Positive Control -80°C Cell-Based Assay HDAC Substrate -20°C HDAC Developer -20°C HDAC Trichostatin A -20°C 96-Well Clear Bottom Black Culture Plate Room Temperature

Kit Components

HDAC Assay Buffer (10X) 1 vial/5 ml Nonidet P-40 Assay Reagent (10%) 1 vial/500 µl HDAC Deacetylated Standard 1 vial/400 µl HDAC1 Positive Control 1 vial/50 µl Cell-Based Assay HDAC Substrate 1 vial/100 µl HDAC Developer 1 vial/20 mg HDAC Trichostatin A 1 vial/250 µl 96-Well Clear Bottom Black Culture Plate 1 plate

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