

# HDAC Activity/Inhibition Fluorometric Assay Kit

## Product Information

### Cat.No.

Kit-0425

### Product Overview

HDAC Activity/Inhibition Assay Kit (Fluorometric) is use for measuring HDAC activity/inhibition.

### Description

Histone deacetylases (HDACs) play a critical role in transcriptional repression of the gene expression in eukaryotic cells through catalyzing the hydrolytic removal of acetyl groups from histone lysine residues. HDACs are tightly involved in cell cycle regulation, cell proliferation, and in development of human cancer. HDAC inhibition displays significant effects on apoptosis, cell cycle arrest, and differentiation in cancer cells. HDAC inhibitors are currently being developed as potential anticancer agents. There are several methods used for measuring HDAC activity/ inhibition. However most of these methods available so far are time consuming, laborious, produce radioactive waste, or cannot measure precise HDAC activity and inhibitory effects of inhibitors.

### Applications

The HDAC Activity/Inhibition Assay Kit (Fluorometric) is very suitable for measuring HDAC activity/inhibition from a broad range of species including mammalian cells/tissues, plants, and bacteria.

### Usage

For research use only (RUO)

### Storage

Upon receipt, store H3, H4, H5 and H7 at  $-20^{\circ}\text{C}$  away from light. Store H1, H6, fluoro-developer and 8 well assay strips at  $4^{\circ}\text{C}$  away from light. Store H2 at room temperature. The components of the kit should be stable for 6 months when stored properly. Note: Check if wash buffer H1 contain salt precipitates before using. If so, warm (at room temperature or  $37^{\circ}\text{C}$ ) and shake the buffers until the salts are redissolved.

## HDAC Activity/Inhibition Fluorometric Assay Kit

### Kit Components

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H1 (10X wash buffer) 28 ml H2 (HDAC Assay buffer) 3 ml H3 (biotinylated HDAC substrate)\* 100 µl H4 (HDAC inhibitor, 0.5 mM)\* 100 µl H5 (HDAC Assay standard, 20 µg/ml)\* 50 µl H6 (capture antibody 1000 µg/ml)\* 10 µl H7 (detection antibody 200 µg/ml)\* 20 µl Fluoro-developer 6 ml 8 well assay strip (with frame) 12\* For maximum recovery of the products, centrifuge the original vial after thawing prior to opening the cap.

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### Features & Benefits

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Fast procedure, which can be finished within 3 hours. Innovative fluorescent assay without need for radioactivity, extraction, and chromatography. Direct measurement of HDAC activity and inhibition with no use of lysyl endopeptidase, thereby avoiding the false inhibitory effect on HDACs and allowing more accurate measurement. Strip microplate format makes the assay flexible: manual or high throughput analysis. Simple, reliable, and consistent assay conditions.

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