

# HDAC1 Assay Kit

**Cat. No.** Kit-0428    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

HDAC1 Assay Kit is use for measuring the amount of HDAC1.

### 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. Three distinct families of HDACs have been described, comprising a group of at least 20 proteins in humans. HDAC1 is a class I histone deacetylase containing 482 amino acid residues. HDAC1 has been shown to interact directly with transcription factors and has been shown to deacetylate histone proteins H3 and H4. The major assay for measuring the expression or amount of HDAC1 protein currently is the Western blot. This method requires electrophoresis and transfer process, which makes the assay inconvenient, time consuming, and has low throughput. The HDAC1 Assay Kit addresses these problems by using a unique procedure to measure amount of HDAC1.

### Applications

For measuring HDAC1 levels from various fresh tissues and cultured mammalian cells.

### Usage

For research use only (RUO)

### Storage

Upon receipt, store HDAC1 control and HA5 at  $-20^{\circ}\text{C}$ . Store HA3, HA4, HA6 and 8

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well assay strips at 4°C away from light. Store all other components at room temperature. The components of the kit should be stable for 6 months when stored properly.

**Kit Components**

HA1 (10X wash buffer) 22 ml HA2 (HDAC assay buffer) 2 ml HA3 (blocking buffer) 20 ml HA4 (capture antibody 200 µg/ml)\* 26 µl HA5 (detection antibody 200 µg/ml)\* 20 µl HA6 (developing solution) 12 ml HA7 (stop solution) 6 ml HDAC1 control (100 ng/µl)\* 32 µl well assay strip (with frame) 12\* For maximum recovery of the products, centrifuge the original vial after thawing prior to opening the cap.

**Features & Benefits**

The fastest procedure, which can be finished within 3 hours. Innovative colorimetric assay to semi-quantitatively measure HDAC1 amount with no need of electrophoresis. Strip microplate format makes the assay flexible: manual or high throughput analysis. Simple, reliable, and consistent assay conditions.

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