

# HDAC8 Activity Assay Kit (Fluorometric) ab156069

[2 Images](#)

### Overview

<b>Product name</b>	HDAC8 Activity Assay Kit (Fluorometric)
<b>Detection method</b>	Fluorescent
<b>Sample type</b>	Cell culture extracts, Tissue Extracts
<b>Assay type</b>	Enzyme activity
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Product overview</b>	<p>Abcam's HDAC8 Activity Assay Kit (Fluorometric) (ab156069) detects HDAC activity in lysates.</p> <p>Primarily, the HDAC8 Activity Assay Kit (Fluorometric) is designed for the rapid and sensitive evaluation of HDAC inhibitors using recombinant HDAC8. Additionally, any cultured primary cell, cell line, or tissue homogenate can be assayed for HDAC8 activity with the HDAC8 Activity Assay Kit (Fluorometric) after immunoprecipitation with an appropriate HDAC8 specific antibody.</p> <p>Applications for this kit include:</p> <ol style="list-style-type: none"> <li>1. Monitoring the purification of HDACs including HDAC1, 2, 3 and 8 (class I).</li> <li>2. Screening inhibitors or activators of HDAC8.</li> <li>3. Detecting the effects of pharmacological agents on HDAC8.</li> </ol>
<b>Notes</b>	<p>Histone Deacetylases (HDACs) are a class of enzymes responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4), allowing the histones to wrap the DNA more tightly.</p> <p>HDAC proteins occur in four groups (class I, class IIA, class IIB, class III, class IV) based on function and DNA sequence similarity.</p> <p>Classes I, IIA and IIB are considered "classical" HDACs whose activities are inhibited by trichostatin A (TSA), whereas class III is a family of NAD<sup>+</sup>-dependent proteins (sirtuins) not affected by TSA. Class IV is considered an atypical class on its own, based solely on DNA sequence similarity to the others.</p>
<b>Platform</b>	Microplate reader

### Properties

<b>Storage instructions</b>	Please refer to protocols.
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Components	100 tests
Developer	1 x 500µl
Fluoro-Deacetylated Peptide (0.2 mM)	1 x 100µl
Fluoro-Substrate Peptide (0.2 mM)	1 x 500µl
HDAC Assay Buffer	2 x 1ml
Recombinant HDAC8	1 x 500µl
Stop Solution	2 x 1ml
Trichostatin A (200µM)	1 x 500µl

## Function

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. May play a role in smooth muscle cell contractility.

## Tissue specificity

Weakly expressed in most tissues. Expressed at higher level in heart, brain, kidney and pancreas and also in liver, lung, placenta, prostate and kidney.

## Sequence similarities

Belongs to the histone deacetylase family. HD type 1 subfamily.

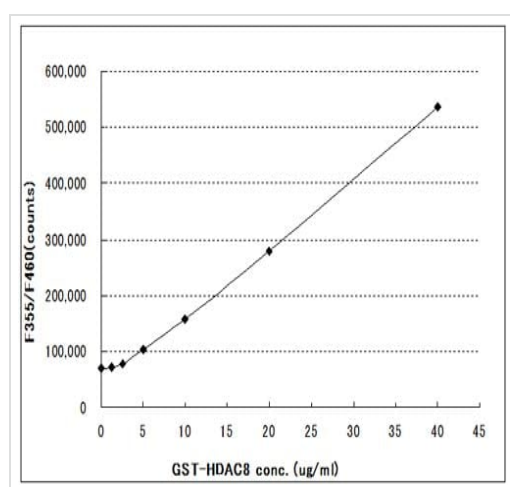
## Post-translational modifications

Phosphorylated by PKA on serine 39. Phosphorylation reduces deacetylase activity observed preferentially on histones H3 and H4.

## Cellular localization

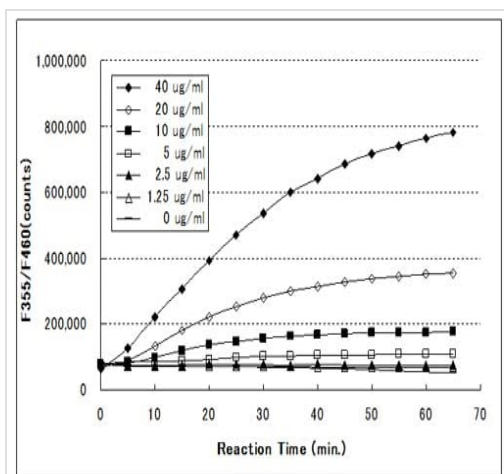
Nucleus. Cytoplasm. Excluded from the nucleoli. Found in the cytoplasm of cells showing smooth muscle differentiation.

## Images



Dose dependency of recombinant HDAC8 (30min.)

ab156069 - HDAC8 Activity Assay Kit (Fluorometric)



Time course of HDAC8 reaction

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