



## HDAC4 Fluorogenic Assay Kit

### Product Information

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#### Cat.No.

Kit-1740

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#### Product Overview

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HDACs regulate cellular processes by catalyzing the hydrolysis of an acetyl group from acetyllysines in modified proteins. In the HDAC assay, fluorescent-dye molecules are attached to a peptide containing acetyllysine. Attachment to the peptide quenches the fluorescence of the dye. After treatment of the peptide with an HDAC, the reaction is mixed with a development solution that is specific for nonacetylated lysines. If the acetyl group has been removed from the lysine by the HDAC, this solution will release the dye allowing for fluorescence. Fluorescence is therefore directly related to HDAC activity.

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#### Size

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96 reactions

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#### Description

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The Fluorogenic HDAC4 Assay Kit is a complete assay system designed to measure histone deacetylase 4 (HDAC4) activity for screening and profiling applications. It comes in a convenient 96-well format, with all the reagents necessary for 100 fluorescent HDAC4 activity measurements. In addition, the kit includes purified HDAC4 enzyme and a potent HDAC inhibitor, Trichostatin A, for use as a positive and negative control. The Fluorogenic HDAC4 Assay Kit is based on a unique fluorogenic substrate and developer combination. This assay method eliminates dealing with the radioactivity, extraction, and chromatography aspects of traditional assays. Using this kit, only two simple steps on a microtiter plate are needed to analyze the HDAC4 activity level. First, the HDAC fluorometric substrate, containing an acetylated lysine side chain, is incubated with purified HDAC4. The deacetylation sensitizes the substrate so subsequent treatment with the Lysine Developer produces a fluorophore that can then be measured using a fluorescence reader.

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#### Applications

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Great for studying enzyme kinetics and screening small molecular inhibitors of HDAC4 for drug



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Assay Kit

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discovery and HTS applications.

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### Storage

12 months from date of receipt, when stored as directed. Kit components require different storage conditions. Be sure to store each component at the proper temperature upon arrival.

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### Kit Components

HDAC4 human recombinant enzyme: 1 µg; -80°C Fluorogenic HDAC substrate class 2A (5 mM): 50 µl; -80°C 2x HDAC Developer (contains Trichostatin A) (50 µM): 6 ml; -80°C Trichostatin A (1 mM) in DMSO: 100 µl; -20°C HDAC Assay Buffer: 10 ml; -20°C black, low binding NUNC black microtiter plate: 1 plate; Room temp.

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Tel: 1-631-559-9269 1-516-512-3133

Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)

Fax: 1-631-938-8127

45-1 Ramsey Road, Shirley, NY 11967, USA