CREATIVE BIOMART®
Assay Kit

Histone Demethylase LSD1 Activity/Inhibition Assay Kit

Product Information

Cat.No. Kit-0447

Product Overview

Histone Demethylase LSD1 Activity/Inhibition Assay Kit is use for measuring cellular LSD1 activity/inhibition.

Description

Lysine histone methylation is one of the most robust epigenetic marks and is essential for the regulation of multiple cellular processes. The methylation of H3-K4 seems to be of particular significance, as it is associated with active regions of the genome. H3-K4 methylation was considered irreversible, until the identification of a large number of histone demethylases indicated that demethylation events play an important role in histone modification dynamics. So far, at least 2 classes of H3-K4 specific histone demethylase, LSD1 and JARIDs have been identified. LSD1 can remove di- and mono-methylation from H3-K4 by using an amine oxidase reaction. LSD1 histone demethylases are found to be involved in some pathological processes such as cancer progression. Inhibition of the enzymes may lead to re-methylation of H3-K4 and silencing of H3-K4 enriched active genes. Currently there are few methods available for measuring activity/inhibition of LSD1 using a variety of cells/tissues.

Applications

The Histone Demethylase LSD1 Activity/Inhibition Assay Kit is very suitable for measuring histone demethylase LSD1 activity/inhibition from a broad range of species including mammalian cell/ tissues, plants and bacteria.

Usage

For research use only (RUO)

Storage

Upon receipt: (1) Store HG3, HG4, and HG6 at –20°C away from light; (2) Store all other components (HG1, HG2, HG5, HG7, and 8-well Assay Strip) at 4°C away from light. The kit is stable for up to 6 months when stored properly.Note: Check if wash buffer, HG1, contains salt precipitates before

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using. If so, warm (at room temperature or 37°C) and shake the buffer until the salts are re-dissolved.

Kit Components

HG1 (10X Wash Buffer) 30 mLHG2 (LSD1 Assay Buffer) 4 mLHG3 (LSD1 Substrate)* 100 μLHG4 (LSD1 Assay Standard, 20 μg/mL)* 50 μLHG5 (Capture Antibody 1000 μg/mL)* 10 μLHG6 (Detection Antibody 200 μg/mL)* 16 μLHG7 (Fluoro-developer) 12 mL8-well Assay Strip (with Frame) 12 strips* For maximum recovery of the products, centrifuge the original vial after thawing prior to opening the cap.

Features & Benefits

Fast procedure, which can be finished within 3 hours.Innovative fluorescent assay without the need for radioactivity, extraction, or chromatography.Direct measurement of LSD1 activity and no interference by thiol-containing chemicals such as DTT, GSH and 2-mercaptoethanol.Both cell/tissue extracts and purified LSD1 can be used, which allows the detection of inhibitory effects of LSD1 inhibitor in vivo and in vitro.Strip microplate format makes the assay flexible: manual or high throughput analysis.Simple, reliable, and consistent assay conditions.