LSD1 fluorometric drug discovery kit

The LSD1 Fluorimetric Drug Discovery Kit provides human recombinant LSD1 and all reagents for measuring its activity in a sensitive, real-time fluorescent assay. LSD1 catalyzed demethylation of the Histone H3 Dimethyl Lysine-4 Peptide (H3K4Me2 Peptide; Prod. No. BML-P256) produces hydrogen peroxide. A fluorescent signal is generated via the horseradish peroxidase (HRP) catalyzed reaction of the hydrogen peroxide with the CELLESTIAL® Red Peroxidase Substrate (Prod. No. BML-KI565). Although fluorescence detection will be more sensitive (Excitation in range of 530-570 nm; Emission ca. 590 nm), the CELLESTIAL® Red peroxidation product may also be detected by following absorbance (see "Detection by Absorbance at 563 nm").

LSD1 (aka KDM1; lysine-specific histone demethylase 1; AOF2), a flavin-containing amine oxidase homolog and component of various corepressor complexes, was the first enzyme demonstrated to be capable of lysine demethylation1. LSD1 catalyzes the oxidative demethylation of mono- and dimethylated histone 3 lysine-4 (H3K4Me2/1), producing hydrogen peroxide and formaldehyde in the process. H3K4 methylation is considered a transcription-activating chromatin mark and, *in vivo*, LSD1 is frequently found in association with the transcriptional corepressor protein CoREST and HDACs 1 or 23. LSD1 is inhibited by a number of established monoamine oxidase inhibitor drugs, including tranylcypromine. That and the fact that its expression is elevated in a number of cancers may make it a promising target for drug development.

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Ordering Information

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BML-AK544-0001	96 wells

Manuals, SDS & CofA

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Handling & Storage

Long Term Storage -80°C

Shipping Dry Ice

Regulatory Status RUO - Research Use Only

Product Details

Alternative Name Lysine-specific Histone Demethylase 1, KDM1, AOF2

Application Activity assay, Cell-based assays, Fluorescent detection, HTS

Contents

Recombinant human LSD1 (50µg, >1000U)
Histone H3 Dimethyl Lysine-4 Peptide Substrate
CELLESTIAL® Red Peroxidase Substrate
Horseradish Peroxidase
H_2O_2 Standard
Tranylcypromine (LSD1 inhibitor)
Black and clear 1/2-vol. 96-well plates
Detailed instructions

UniProt ID O60341

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