


Product datasheet

Histone Demethylase KDM1/LSD1 Inhibitor Assay Kit  
ab113456

1 Image

Overview

Product name	Histone Demethylase KDM1/LSD1 Inhibitor Assay Kit
Assay type	Enzyme activity
Assay time	1h 00m
Species reactivity	<b>Reacts with:</b> Mouse, Human <b>Predicted to work with:</b> Mammals 
Product overview	<p>Histone Demethylase KDM1/LSD1 Inhibitor Assay Kit (ab113456) allows the user to measure inhibition of KDM1/LSD1. The kit is ready-to-use and provides all the essential components needed for screening KDM1/LSD1 inhibitors, which are directly interacting with the enzyme or blocking the binding to its substrate.</p> <p>KDM1/LSD1 (Lysine Specific Histone Demethylase 1) is a histone demethylase that only acts on mono- or di-methylated lysines. KDM1/LSD1 acts as a co-repressor by mediating demethylation of H3(meK4), a specific tag for epigenetic transcriptional activation.</p> <p>This kit may cross react with LSD2.</p>
Platform	Microplate reader

Properties

Storage instructions Please refer to protocols.

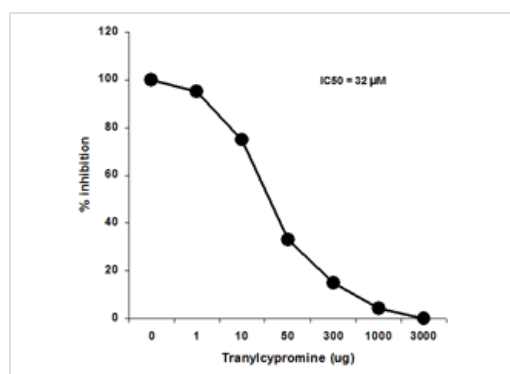
Components	48 tests	96 tests
8-Well Assay Strips (with Frame)	6 units	12 units
Fluoro Developer	1 x 12µl	1 x 24µl
Fluoro Diluter	1 x 4ml	1 x 8ml
Fluoro Enhancer	1 x 12µl	1 x 24µl

Components	48 tests	96 tests
LSD1 Assay Buffer	1 x 2ml	1 x 4ml
LSD1 Assay Standard, 100 mM	1 x 10µl	1 x 20µl
LSD1 Inhibitor, 1 mM	1 x 25µl	1 x 50µl
LSD1 Substrate, 0.7 mM	1 x 150µl	1 x 300µl

## Relevance

Histone demethylase that demethylates both 'Lys-4' (H3K4me) and 'Lys-9' (H3K9me) of histone H3, thereby acting as a coactivator or a corepressor, depending on the context. Acts by oxidizing the substrate by FAD to generate the corresponding imine that is subsequently hydrolyzed. Acts as a corepressor by mediating demethylation of H3K4me, a specific tag for epigenetic transcriptional activation. Demethylates both mono- (H3K4me1) and di-methylated (H3K4me2)H3K4me. May play a role in the repression of neuronal genes. Alone, it is unable to demethylate H3K4me on nucleosomes and requires the presence of RCOR1/CoREST to achieve such activity. Also acts as a coactivator of androgen receptor(ANDR)-dependent transcription, by being recruited to ANDR target genes and mediating demethylation of H3K9me, a specific tag for epigenetic transcriptional repression. The presence of PRKCB in ANDR-containing complexes, which mediates phosphorylation of 'Thr-6' of histone H3 (H3T6ph), a specific tag that prevents demethylation H3K4me, prevents H3K4me demethylase activity of KDM1A. Demethylates di-methylated 'Lys-370' of p53/TP53 which prevents interaction of p53/TP53 with TP53BP1 and represses p53/TP53-mediated transcriptional activation. Demethylates and stabilizes the DNA methylase DNMT1. Required for gastrulation during embryogenesis. Component of a RCOR/GFI/KDM1A/HDAC complex that suppresses, via histone deacetylase (HDAC) recruitment, a number of genes implicated in multilineage blood cell development.

## Images



Inhibition of KDM1/LSD1 by tranylcypromine (TCP) detected using ab113456. [LSD1 concentration: 500 ng/well].

Functional Studies - Histone Demethylase  
KDM1/LSD1 Inhibitor Assay Kit (ab113456)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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