

LSD1, Human Recombinant

CATALOG #: P1659-10 10 µg
P1659-50 50 µg

ALTERNATIVE NAMES: Lysine-specific histone demethylase, 1KDM1, BHC110, AOF2, KIAA0601, KDM1A, lysine (K)-specific demethylase 1A

SOURCE: Sf9 insect cells

PURITY: ≥ 95% by SDS-PAGE

MOL. WEIGHT: 93.9 kDa (His tag at the N-terminus)

FORM: Liquid

FORMULATION: In 25 mM Tris, pH 8.0 and 50% Glycerol.

STORAGE CONDITIONS: This product is stable at ≤-70 °C for up to 1 year from the date of receipt. For optimal storage, divide into smaller aliquots after centrifugation and store at the recommended temperature. Avoid repeated freeze-thaw cycles.

DESCRIPTION:

The mono, di- and trimethylation of particular lysine residues in histone tails (e.g. histone H3 lysine-4 (H3K4), H3K9, H3K27, H3K36, H4K20) are implicated in the transmission of heritable epigenetic information and the control of chromatin structure and DNA transcription. LSD1 catalyzes the oxidative demethylation of mono- and dimethylated H3K4, producing hydrogen peroxide and formaldehyde in the process. H3K4 methylation is considered a transcription activating chromatin mark. In vivo LSD1 is frequently found in association with the transcriptional corepressor protein CoREST and HDACs 1 or 2. Its expression is elevated in a number of cancers, which makes it a promising target for drug development. LSD1 is inhibited by a number of established monoamine oxidase inhibitor drugs.

SPECIFIC ACTIVITY: ≥ 10 mU/mg

UNIT DEFINITION: One unit of LSD1 is the amount of enzyme that demethylates the Histone H3 Dimethyl Lysine4 Peptide substrate while generating 1 µmol H₂O₂ per minute at pH 8.5 and 37 °C.

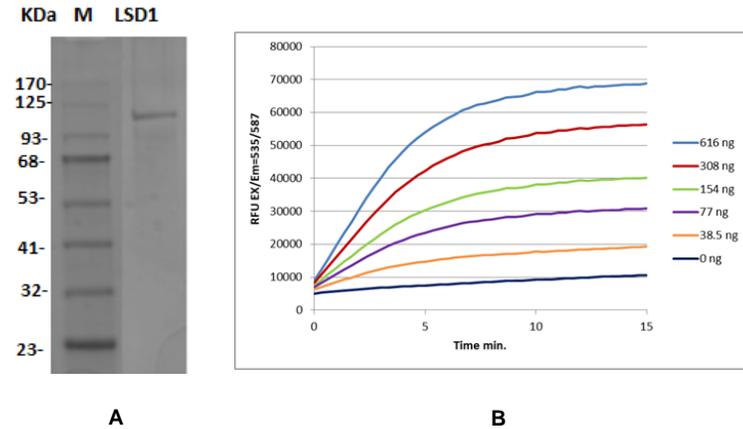


Figure A. SDS-PAGE of LSD1: Recombinant LSD1 (4 µg) was loaded on a 4-20% SDS-PAGE under reducing conditions and stained with Coomassie Blue. **Figure B. LSD1 Activity Assay:** LSD1 activity was measured by its ability to demethylate the Histone H3 Dimethyl Lysine4 Peptide substrate and generate H₂O₂ using BioVision's LSD Activity Assay Kit (Fluorometric) (Cat # K2070-100)

RELATED PRODUCTS:

- Pargyline hydrochloride (Cat# 2618)
- LSD1/AOF2 Antibody (Cat# 3129)
- GSK-2879552 (Cat# B1044)
- ORY-1001 (Cat# B1957)
- Lysine-specific Demethylase Inhibitor (1C) (Hydrochloride) (Cat# B2814)

FOR RESEARCH USE ONLY! Not to be used on humans.