LSD1 (human), (recombinant)

Highly active

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, along with a variety of other post-translational modifications (e.g. lysine acetylation) 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 and *in vivo* LSD1 is frequently found in association with the transcriptional corepressor protein CoREST and HDACs 1 or 2. LSD1 is inhibited by a number of established monoamine oxidase inhibitor drugs. 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-SE544-0050	50µg

Manuals, SDS & CofA

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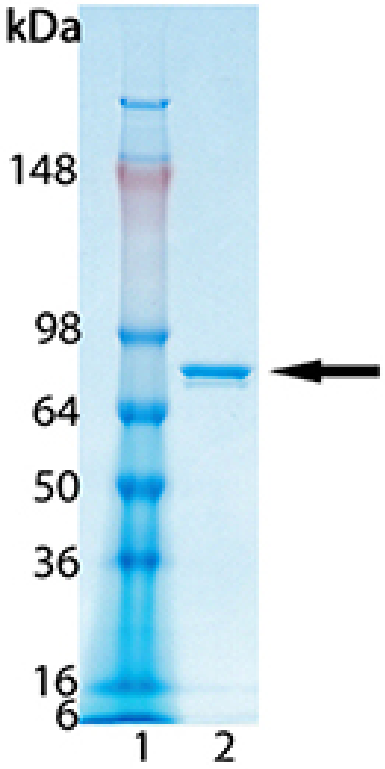

SDS-PAGE Analysis: Lane 1: MW Marker, Lane 2: 0.5 µg of Purified LSD1 (human) (rec.) Prod. No. BML-SE544.

Handling & Storage

Use/Stability	The enzyme is stable on ice for the time typically required to set up an experiment (30-60 min.), but may lose activity with prolonged storage on ice. It is recommended that thawing and dilution of the enzyme be done within as short a time as possible before start of the assay. The remaining, unused, undiluted enzyme should be refrozen quickly by, for example, snap freezing in a dry/ice ethanol bath or liquid nitrogen. Freezing and storage of diluted enzyme is not recommended.
Handling	Do not freeze/thaw. After opening, prepare aliquots and store at -80°C.
Long Term Storage	-80°C
Shipping	Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Activity	Highly active in a peroxidase-coupled assay with the Histone H3 Dimethyl Lysine-4 Peptide (Prod. No. BML-P256).
Alternative Name	KDM1, Lysine-specific histone demethylase 1, BHC110, AOF2, KIAA0601
Application Notes	Useful tool to study LSD1 kinetics and inhibitor sensitivity and also the effect of the enzyme in transcriptional regulation, cell cycle progression, and oncogenesis.
Formulation	Liquid. In 8.1mM Na_2HPO_4, 1.5mM KH_2PO_4, pH 7.2, 138mM sodium chloride, 2.7mM KCl and 40% v/v glycerol.
MW	78 kDa
Purity	≥90% (SDS-PAGE)
Purity Detail	Purified by multi-step chromatography.
Sequence	N-terminal truncation of LSD1 from human cDNA. Sequence is identical to Genbank accession NM015013 (aa 151-852).
Source	Produced in *E. coli*.

Specific Activity	≥20 U/µg. One U=1 pmol/min at 30°C, 100 µM Histone H3 Dimethyl Lysine-4 Peptide (Prod. No. BML-P256).
UniProt ID	O60341

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