

# 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.

Citations: 4

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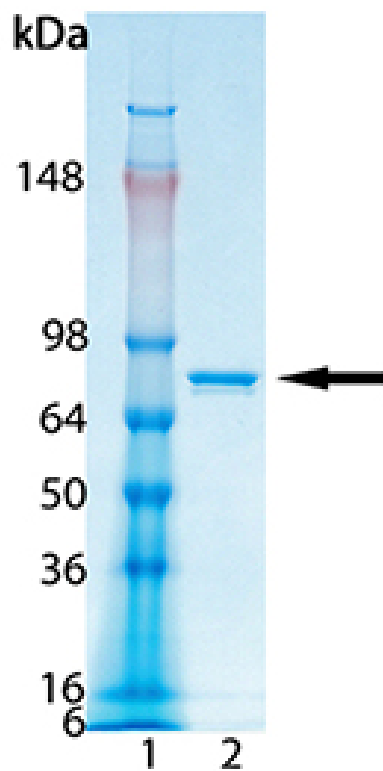
## Ordering Information

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BML-SE544-0050	50µg
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## Manuals, SDS & CofA

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

## Handling & Storage

<b>Use/Stability</b>	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.
<b>Handling</b>	Do not freeze/thaw. After opening, prepare aliquots and store at -80°C.
<b>Long Term Storage</b>	-80°C
<b>Shipping</b>	Dry Ice

## Regulatory Status

RUO - Research Use Only

## Product Details

<b>Activity</b>	Highly active in a peroxidase-coupled assay with the Histone H3 Dimethyl Lysine-4 Peptide (Prod. No. BML-P256).
<b>Alternative Name</b>	KDM1, Lysine-specific histone demethylase 1, BHC110, AOF2, KIAA0601
<b>Application Notes</b>	Useful tool to study LSD1 kinetics and inhibitor sensitivity and also the effect of the enzyme in transcriptional regulation, cell cycle progression, and oncogenesis.
<b>Formulation</b>	Liquid. In 8.1mM Na <sub>2</sub> HPO <sub>4</sub> , 1.5mM KH <sub>2</sub> PO <sub>4</sub> , pH 7.2, 138mM sodium chloride, 2.7mM KCl and 40% v/v glycerol.
<b>MW</b>	78 kDa
<b>Purity</b>	≥90% (SDS-PAGE)
<b>Purity Detail</b>	Purified by multi-step chromatography.
<b>Sequence</b>	N-terminal truncation of LSD1 from human cDNA. Sequence is identical to Genbank accession NM015013 (aa 151-852).
<b>Source</b>	Produced in <i>E. coli</i> .
<b>Specific Activity</b>	≥20 U/μg. One U=1 pmol/min at 30°C, 100 μM Histone H3 Dimethyl Lysine-4 Peptide (Prod. No. BML-P256).



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