

Product Information

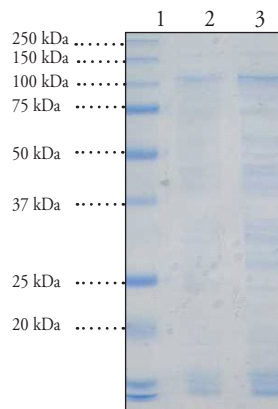
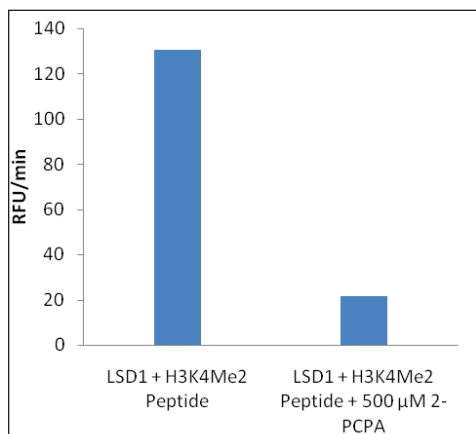


LSD1 (human recombinant)

Item No. 10245 • Lot. No. XXXXXX

Synonyms:	AOF2, BHC110, KDM1, Lysine-Specific Demethylase 1, NPAO, p110b
Source:	Human recombinant N-terminal hexahistidine-tagged enzyme expressed in <i>E. coli</i> ; BC048134
M_r:	94 kDa
Purity:	>50%
Stability:	≥6 months at -80°C. For long term storage aliquot the protein and store at -80°C.
Supplied in:	50 mM sodium phosphate, pH 7.2 containing 100 mM sodium chloride and 20% glycerol
Protein Concentration:	XX mg/ml
Activity:	XX U/ml
Specific Activity:	XX U/mg; One unit is defined as the amount of enzyme required to produce 1 picomole of H ₂ O ₂ per minute at 37°C in 50 mM Hepes, pH 7.5 containing 25 μM FAD, 100 μM H3K4Me2 peptide (amino acids 1-21), 50 μM ADHP, and 4.2 U/ml horseradish peroxidase.

LSD1 (lysine-specific demethylase 1) belongs to the family of flavin adenine dinucleotide (FAD)-dependent amine oxidases that include monoamine oxidases (MAOs) and polyamine oxidase (PAO).¹ LSD1 is a component of several histone deacetylase co-repressor complexes, including histone deacetylases 1/2, CtBP, and the neuronal CoREST complexes.² LSD1, with the help of its co-factor CoREST, specifically demethylates mono- and dimethylated histone H3 lysine 4 (H3-K4), resulting in transcriptional repression.³ In addition to demethylating histones, LSD1 controls the tumor suppressor activity of p53 by demethylating a specific p53 lysine residue (LYS370).⁴ This activity does not seem to require CoREST and p53 demethylation of LYS370 prevents p53 interaction with its co-activator 53BP1 to induce apoptosis.⁴⁻⁷



1. MW Marker
2. LSD1 (1 μg)
3. LSD1 (2 μg)

References

1. Shi, Y., Lan, F., Matson, C., *et al. Cell* **119**, 941-953 (2004).
2. Shi, Y.-J., Matson, C., Lan, F., *et al. Molecular Cell* **19**, 864 (2005).
3. Forneris, F., Binda, C., Vanoni, M.A., *et al. J. Biol. Chem.* **280**(50), 41360-41365 (2005).
4. Huang, J., Sengupta, R., Espejo, A.B., *et al. Nature* **449**, 105-108 (2007).
5. Scoumanne, A. and Chen, X. *J. Biol. Chem.* **282**(21), 15471-15475 (2007).
6. Tsai, W.-W., Nguyen, T.T., Shi, Y., *et al. Mol. Cell. Biol.* **28**(17), 5139-5146 (2008).
7. Scoumanne, A. and Chen, X. *Histol. Histopathol.* **23**, 1143-1149 (2008).

Related Products

JMJ2D2 (human recombinant) - Item No. 10335 • UTX (human recombinant) - Item No. 10774 • LSD1 Polyclonal Antibody (aa 450-500) - Item No. 13486 • LSD1 Polyclonal Antibody (aa 400-450) - Item No. 13553 • LSD1 Polyclonal Antibody (aa 100-150) - Item No. 13554 • LSD1 Polyclonal Antibody (aa 800-850) - Item No. 13555 • LSD1 Inhibitor Screening Assay Kit - Item No. 700120 • HDAC1 (human recombinant) - Item No. 10009231 • HDAC3 (human recombinant) - Item No. 10009232 • HDAC2 (human recombinant) - Item No. 10009377 • Chromium (III) chloride, hexahydrate - Item No. 10009329 • HDAC8 (human recombinant) - Item No. 10009380 • HDAC6 (human recombinant) - Item No. 10009465 • HDAC9 (human recombinant) - Item No. 10009466 • 2-PCPA (hydrochloride) - Item No. 10010494 • SIRT1 (human recombinant) - Item No. 10011190

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

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