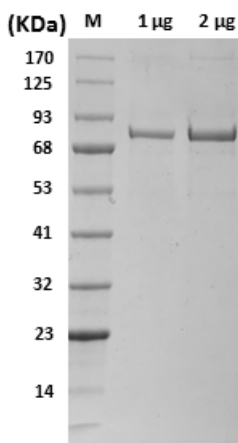
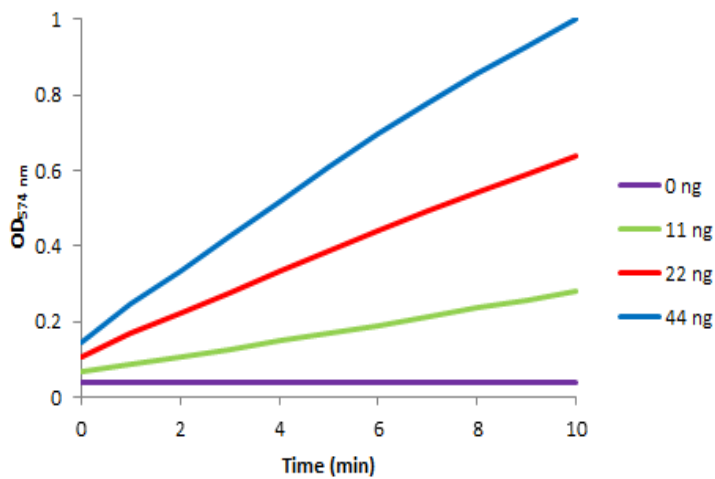


# L-Lysine 6-Oxidase, *M. mediterranea*

<b>CATALOG NO:</b>	P1500-10 10 mU
<b>ALTERNATE NAMES:</b>	L-lysine-epsilon-oxidase, LodA, marinocine
<b>MOL. WT.</b>	80.88 kDa
<b>SOURCE:</b>	<i>Marinomonas mediterranea</i>
<b>PURITY:</b>	>95% by SDS-PAGE
<b>FORM:</b>	Lyophilized
<b>FORMULATION:</b>	Proprietary buffer
<b>RECONSTITUTION:</b>	Centrifuge the vial prior to opening. Reconstitute in sterile deionized water.
<b>SPECIFIC ACTIVITY:</b>	Specific activity is >2 U/mg. The specific activity of Lysine oxidase was measured in the presence of substrate, L-lysine. Rate of H <sub>2</sub> O <sub>2</sub> production was detected by increase in absorbance.
<b>UNIT DEFINITION:</b>	One unit of L-Lysine oxidase is the amount of enzyme that converts L-lysine to 6-amino-2-oxohexanoate and generates 1.0 μmol of H <sub>2</sub> O <sub>2</sub> per minute at pH 7.4 at 25 °C.
<b>STORAGE CONDITIONS:</b>	Lyophilized protein can be stored at -20°C. Centrifuge the vial prior to opening. Store the reconstituted enzyme at 4°C and use within 2 weeks.
<b>DESCRIPTION:</b>	LodA is a novel enzyme (EC 1.4.3.20) that catalyzes the following reaction: L-lysine + O <sub>2</sub> + H <sub>2</sub> O ↔ 6-amino-2-oxohexanoate + NH <sub>3</sub> + H <sub>2</sub> O <sub>2</sub> . It has antibacterial activity against a wide spectrum of Gram-positive and Gram-negative bacteria including nosocomial isolates of <i>S.aureus</i> and <i>Pseudomonas</i> sp. The antimicrobial activity is due to hydrogen peroxide product generated by its lysine oxidase activity. It also has autotoxic activity. Involved in biofilm differentiation; responsible for cell death within microcolonies during biofilm development which is linked to the generation of a phenotypically diverse dispersal population and thus may play a role in colonization. The lysine oxidase is used in the enzymatic assay of L-lysine.



**SDS-PAGE (4-20%) L-Lysine Oxidase:** Enzyme was loaded under reducing conditions and stained with Coomassie Blue. Lane M-MW marker



**L-Lysine 6-Oxidase activity.** The specific activity of Lysine oxidase was measured in the presence of substrate, L-lysine. Rate of H<sub>2</sub>O<sub>2</sub> production was detected by an increase in absorbance.

**RELATED PRODUCTS:**

- Carboxymethyl Lysine (CML) ELISA Kit (E4634)
- Anti-Acetyl-Lysine Antibody (5A1) (A1029)
- Lysine Assay Kit (Fluorometric) (K2005)

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