

## Recombinant Mycolicibacterium smegmatis Lactate 2-monooxygenase

Cat. No. EXWM-0617

Lot. No. (See product label)

### Introduction

**Description** In enzymology, a lactate 2-monooxygenase (EC 1.13.12.4) is an enzyme that catalyzes the chemical reaction (S)-lactate + O<sub>2</sub> ⇌ acetate + CO<sub>2</sub> + H<sub>2</sub>O. Thus, the two substrates of this enzyme are (S)-lactate and O<sub>2</sub>, whereas its 3 products are acetate, CO<sub>2</sub>, and H<sub>2</sub>O. This enzyme belongs to the family of oxidoreductases, specifically those acting on single donors with O<sub>2</sub> as oxidant and incorporation of two atoms of oxygen into the substrate (oxygenases). The oxygen incorporated need not be derived from O with incorporation of one atom of oxygen (internal monooxygenases or internal mixed-function oxidases).

### Product Information

<b>Species</b>	Mycolicibacterium smegmatis
<b>Source</b>	E.coli
<b>Form</b>	Lyophilized powder
<b>EC Number</b>	EC 1.13.12.4
<b>CAS No.</b>	9028-72-2
<b>Purity</b>	Greater than 85% as determined by SDS-PAGE.
<b>Activity</b>	Not detected
<b>Buffer</b>	Tris/PBS-based buffer, 6% Trehalose, pH 8.0
<b>Reaction</b>	(S)-lactate + O <sub>2</sub> = acetate + CO <sub>2</sub> + H <sub>2</sub> O
<b>Notes</b>	This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

### Storage and Shipping Information

**Storage** Store at -20°C/-80°C upon receipt, aliquoting is necessary for multiple use. Avoid repeated freeze-thaw cycles.