

ubiquinol oxidase (electrogenic, non H⁺-transporting)

Cat. No. EXWM-0480

Lot. No. (See product label)

Introduction

Description This terminal oxidase enzyme is unable to pump protons but generates a proton motive force by transmembrane charge separation resulting from utilizing protons and electrons originating from opposite sides of the membrane to generate water. The bioenergetic efficiency (the number of charges driven across the membrane per electron used to reduce oxygen to water) is 1. The bd-I oxidase from the bacterium *Escherichia coli* is the predominant respiratory oxygen reductase that functions under microaerophilic conditions in that organism. cf. EC 1.10.3.10, ubiquinol oxidase (H⁺-transporting).

Synonyms cytochrome bd-I oxidase; cydA (gene name); cydB (gene name); ubiquinol:O₂ oxidoreductase (electrogenic, non H⁺-transporting)

Product Information

Form Liquid or lyophilized powder

EC Number EC 7.1.1.7 (Formerly EC 1.10.3.14)

Reaction $2 \text{ ubiquinol} + \text{O}_2 + 4 \text{ H}^+[\text{side 1}] = 2 \text{ ubiquinone} + 2 \text{ H}_2\text{O} + 4 \text{ H}^+[\text{side 2}]$

Notes 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 it at +4 °C for short term. For long term storage, store it at -20 °C~-80 °C.