

ubiquinol oxidase (H⁺-transporting)

Cat. No. EXWM-0476

Lot. No. (See product label)

Introduction

Description

Contains a dinuclear centre comprising two hemes, or heme and copper. This terminal oxidase enzyme generates proton motive force by two mechanisms: (1) transmembrane charge separation resulting from utilizing protons and electrons originating from opposite sides of the membrane to generate water, and (2) active pumping of protons across the membrane. The bioenergetic efficiency (the number of charges driven across the membrane per electron used to reduce oxygen to water) depends on the enzyme; for example, for the bo3 oxidase it is 2, while for the bd-II oxidase it is 1. cf. EC 1.10.3.14, ubiquinol oxidase (electrogenic, non H⁺-transporting).

Synonyms

cytochrome bb3 oxidase; cytochrome bo oxidase; cytochrome bd-II oxidase; ubiquinol:O₂ oxidoreductase (H⁺-transporting)

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 7.1.1.3 (Formerly EC 1.10.3.10)

Reaction

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

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.