

aerobic carbon monoxide dehydrogenase

Cat. No. EXWM-1222

Lot. No. (See product label)

Introduction

Description

This enzyme, found in carboxydophilic bacteria, catalyses the oxidation of CO to CO₂ under aerobic conditions. The enzyme contains a binuclear Mo-Cu cluster in which the copper is ligated to a molybdopterin center via a sulfur bridge. The enzyme also contains two [2Fe-2S] clusters and FAD, and belongs to the xanthine oxidoreductase family. The CO₂ that is produced is assimilated by the Calvin-Benson-Basham cycle, while the electrons are transferred to a quinone via the FAD site, and continue through the electron transfer chain to a dioxygen terminal acceptor. cf. EC 1.2.7.4, anaerobic carbon monoxide dehydrogenase.

Synonyms

MoCu-CODH; coxSML (gene names); molybdoenzyme carbon monoxide dehydrogenase

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 1.2.5.3

Reaction

CO + a quinone + H₂O = CO₂ + a quinol

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.