

## phycocyanobilin:ferredoxin oxidoreductase

Cat. No. EXWM-1400

Lot. No. (See product label)

### Introduction

#### Description

Catalyses the four-electron reduction of biliverdin IX $\alpha$  (2-electron reduction at both the A and D rings). Reaction proceeds via an isolatable 2-electron intermediate, 181,182-dihydrobiliverdin. Flavodoxins can be used instead of ferredoxin. The direct conversion of biliverdin IX $\alpha$  (BV) to (3Z)-phycocyanobilin (PCB) in the cyanobacteria *Synechocystis* sp. PCC 6803, *Anabaena* sp. PCC7120 and *Nostoc punctiforme* is in contrast to the proposed pathways of PCB biosynthesis in the red alga *Cyanidium caldarium*, which involves (3Z)-phycoerythrobilin (PEB) as an intermediate and in the green alga *Mesotaenium caldariorum*, in which PCB is an isolable intermediate.

### Product Information

**Form** Liquid or lyophilized powder

**EC Number** EC 1.3.7.5

**CAS No.** 347401-12-1

**Reaction** (3Z)-phycocyanobilin + 4 oxidized ferredoxin = biliverdin IX $\alpha$  + 4 reduced ferredoxin

**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.