

## pentachlorophenol monooxygenase

Cat. No. EXWM-0857

Lot. No. (See product label)

### Introduction

#### Description

A flavoprotein (FAD). The enzyme displaces a diverse range of substituents from the 4-position of polyhalogenated phenols but requires that a halogen substituent be present at the 2-position. The enzyme converts many polyhalogenated phenols into hydroquinones, and requires that a halogen substituent be present at C-2. If C-4 carries a halogen substituent, reaction 1 is catalysed, e.g. 2,4,6-triiodophenol is oxidized to 2,6-diiodohydroquinone; if C-4 is unsubstituted, reaction 2 is catalysed.

#### Synonyms

pentachlorophenol dechlorinase; pentachlorophenol dehalogenase; pentachlorophenol 4-monooxygenase; PCP hydroxylase; pentachlorophenol hydroxylase; PcpB; PCB 4-monooxygenase; PCB4MO

### Product Information

**Form** Liquid or lyophilized powder

**EC Number** EC 1.14.13.50

**CAS No.** 136111-57-4

**Reaction** (1) pentachlorophenol + 2 NADPH + H<sup>+</sup> + O<sub>2</sub> = 2,3,5,6-tetrachlorohydroquinone + 2 NADP<sup>+</sup> + chloride + H<sub>2</sub>O; (2) 2,3,5,6-tetrachlorophenol + NADPH + H<sup>+</sup> + O<sub>2</sub> = 2,3,5,6-tetrachlorohydroquinone + NADP<sup>+</sup> + H<sub>2</sub>O

**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.