Creative Enzymes®

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+ + O2 = 2,3,5,6-tetrachlorohydroquinone + 2 NADP+ + chloride + H2O; (2) 2,3,5,6-tetrachlorophenol + NADPH + H+ + O2 = 2,3,5,6-tetrachlorohydroquinone + NADP+ + H2O
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 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.