Creative Enzymes®

dibenzothiophene monooxygenase

Cat. No. EXWM-0918

Lot. No. (See product label)

Introduction

Description This bacterial enzyme catalyses the first two steps in the desulfurization pathway of dibenzothiophenes, the oxidation of dibenzothiophene into dibenzothiophene sulfone via dibenzothiophene-5-oxide. The enzyme forms a two-component system with a dedicated NADH-dependent FMN reductase (EC 1.5.1.42) encoded by the dszD gene, which also interacts with EC 1.14.14.22, dibenzothiophene sulfone monooxygenase.

Synonyms dszC (gene name)

Product Information

Form Liquid or lyophilized powder

EC Number EC 1.14.14.21

Reaction dibenzothiophene + 2 FMNH2 + 2 O2 = dibenzothiophene-5,5-dioxide + 2 FMN + 2 H2O (overall reaction); (1a) dibenzothiophene + FMNH2 + O2 = dibenzothiophene-5-oxide + FMN + H2O; (1b) dibenzothiophene-5-oxide + FMNH2 + O2 = dibenzothiophene-5,5-dioxide + FMN + 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 ℃.