Creative Enzymes®

methanogen homoaconitase

Cat. No. EXWM-4954

Lot. No. (See product label)

Introduction

Description This enzyme catalyses several reactions in the pathway of coenzyme-B biosynthesis in methanogenic archaea. Requires a [4Fe-4S] cluster for activity. In contrast to EC 4.2.1.36, homoaconitate hydratase, this enzyme can catalyse both the dehydration of (R)-homocitrate to form cis-homoaconitate and the subsequent hydration reaction that forms homoisocitrate. In addition to cis-homoaconitate, the enzyme can also catalyse the hydration of the physiological substrates dihomocitrate and trihomocitrate as well as the non-physiological substrate tetrahomocitrate. cis-Aconitate and threo-DL-isocitrate cannot act as substrates, and (S)-homocitrate and trans-homoaconitate act as inhibitors of the enzyme.

Synonyms methanogen HACN

Product Information

Form Liquid or lyophilized powder

EC Number EC 4.2.1.114

Reaction (R)-2-hydroxybutane-1,2,4-tricarboxylate = (1R,2S)-1-hydroxybutane-1,2,4-tricarboxylate (overall reaction); (1a) (R)-2-hydroxybutane-1,2,4-tricarboxylate = (Z)-but-1-ene-1,2,4-tricarboxylate + H2O; (1b) (Z)-but-1-ene-1,2,4-tricarboxylate + H2O = (1R,2S)-1-hydroxybutane-1,2,4-tricarboxylate

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 ℃.