Creative Enzymes®

4-phosphopantoate-β-alanine ligase

Cat. No. EXWM-5753

Lot. No. (See product label)

Introduction

Description	The conversion of (R)-pantoate to (R)-4'-phosphopantothenate is part of the pathway leading to biosynthesis of 4'-phosphopantetheine, an essential cofactor of coenzyme A and acyl-carrier protein. In bacteria and eukaryotes this conversion is performed by condensation with β-alanine, followed by phosphorylation (EC 6.3.2.1 [pantoate-β-alanine ligase] and EC 2.7.1.33 [pantothenate kinase], respectively). In archaea the order of these two steps is reversed, and phosphorylation precedes condensation with β-alanine. The two archaeal enzymes that catalyse this conversion are EC 2.7.1.169, pantoate kinase, and this enzyme.
Synonyms	phosphopantothenate synthetase; TK1686 protein

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 6.3.2.36
Reaction	ATP + (R)-4-phosphopantoate + β-alanine = AMP + diphosphate + (R)-4'-phosphopantothenate
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 ℃.