Creative Enzymes®

nebramycin 5' synthase

Cat. No. EXWM-5666

Lot. No. (See product label)

Introduction

Description	Requires Fe(III). The enzyme from the bacterium Streptoalloteichus tenebrarius catalyses the activation of carbamoyl phosphate to O-carbamoyladenylate and the subsequent carbamoylation of kanamycin and tobramycin.
Synonyms	tobramycin carbamoyltransferase; TobZ

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 6.1.2.2
Reaction	(1) tobramycin + carbamoyl phosphate + ATP + H2O = nebramycin 5' + AMP + diphosphate + phosphate (overall reaction); (1a) carbamoyl phosphate + ATP + H2O = diphosphate + O-carbamoyladenylate + phosphate; (1b) O-carbamoyladenylate + tobramycin = AMP + nebramycin 5'; (2) kanamycin A + carbamoyl phosphate + ATP + H2O = 6''-O-carbamoylkanamycin A + AMP + diphosphate + phosphate (overall reaction); (2a) carbamoyl phosphate + ATP + H2O = diphosphate + O-carbamoyladenylate + phosphate; (2b) O-carbamoyladenylate + kanamycin A = AMP + 6''-O-carbamoylkanamycin A
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 ℃.