Creative Enzymes®

carboxynorspermidine synthase

Cat. No. EXWM-1524

Lot. No. (See product label)

Introduction

Description	The reaction takes place in the opposite direction. Part of a bacterial polyamine biosynthesis pathway. L-aspartate 4-semialdehyde and propane-1,3-diamine/putrescine form a Schiff base that is reduced to form carboxynorspermidine/carboxyspermidine, respectively. The enzyme from the bacterium Vibrio cholerae is essential for biofilm formation. The enzyme from Campylobacter jejuni only produces carboxyspermidine in vivo even though it also can produce carboxynorspermidine in vitro.
Synonyms	carboxynorspermidine dehydrogenase; carboxyspermidine dehydrogenase; CASDH; CANSDH; VC1624 (gene name)

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.5.1.43
Reaction	(1) carboxynorspermidine + H2O + NADP+ = L-aspartate 4-semialdehyde + propane-1,3-diamine + NADPH + H+; (2) carboxyspermidine + H2O + NADP+ = L-aspartate 4-semialdehyde + putrescine + NADPH + H+
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 ℃.