

cyanophycin synthase (L-arginine-adding)

Cat. No. EXWM-5747

Lot. No. (See product label)

Introduction

Description Requires Mg²⁺ for activity. Both this enzyme and EC 6.3.2.29, cyanophycin synthase (L-aspartate-adding), are required for the elongation of cyanophycin, which is a protein-like cell inclusion that is unique to cyanobacteria and acts as a temporary nitrogen store. Both enzymes are found in the same protein but have different active sites. Both L-Asp and L-Arg must be present before either enzyme will display significant activity. Canavanine and lysine can be incorporated into the polymer instead of arginine.

Synonyms CphA (ambiguous); CphA1 (ambiguous); CphA2 (ambiguous); cyanophycin synthetase (ambiguous); multi-L-arginyl-poly-L-aspartate synthase (ambiguous)

Product Information

Form Liquid or lyophilized powder

EC Number EC 6.3.2.30

CAS No. 131554-17-1

Reaction $\text{ATP} + [\text{L-Asp(4-L-Arg)}]_n\text{-L-Asp} + \text{L-Arg} = \text{ADP} + \text{phosphate} + [\text{L-Asp(4-L-Arg)}]_{n+1}$

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 °C for short term. For long term storage, store it at -20 °C~-80 °C.