

cobaltochelatase

Cat. No. EXWM-5828

Lot. No. (See product label)

Introduction

Description This enzyme, which forms part of the aerobic cobalamin biosynthesis pathway, is a type I chelatase, being heterotrimeric and ATP-dependent. It comprises two components, one of which corresponds to CobN and the other is composed of two polypeptides, specified by cobS and cobT in *Pseudomonas denitrificans*, and named CobST. Hydrogenobyrrinic acid is a very poor substrate. ATP can be replaced by dATP or CTP but the reaction proceeds more slowly. CobN exhibits a high affinity for hydrogenobyrrinic acid a,c-diamide. The oligomeric protein CobST possesses at least one sulfhydryl group that is essential for ATP-binding. Once the Co²⁺ is inserted, the next step in the pathway ensures that the cobalt is ligated securely by reducing Co(II) to Co(I). This step is carried out by EC 1.16.8.1, cob(II)yrinic acid a,c-diamide reductase.

Synonyms hydrogenobyrrinic acid a,c-diamide cobaltochelatase; CobNST; CobNCobST

Product Information

Form Liquid or lyophilized powder

EC Number EC 6.6.1.2

CAS No. 81295-49-0

Reaction ATP + hydrogenobyrrinic acid a,c-diamide + Co²⁺ + H₂O = ADP + phosphate + cob(II)yrinic acid a,c-diamide + 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 °C for short term. For long term storage, store it at -20 °C~-80 °C.