

ATP-dependent NAD(P)H-hydrate dehydratase

Cat. No. EXWM-5077

Lot. No. (See product label)

Introduction

Description

Acts equally well on hydrated NADH and hydrated NADPH. NAD(P)H spontaneously hydrates to both the (6S)- and (6R)- isomers, and these are interconverted by EC 5.1.99.6, NAD(P)H-hydrate epimerase, to a 60:40 ratio. Hence EC 4.2.1.93 together with EC 5.1.99.6 can restore the mixture of hydrates into NAD(P)H. The enzyme from eukaryotes has no activity with ADP, contrary to the enzyme from bacteria (cf. EC 4.2.1.136, ADP-dependent NAD(P)H-hydrate dehydratase).

Synonyms

reduced nicotinamide adenine dinucleotide hydrate dehydratase; ATP-dependent H₄NAD(P)+OH dehydratase; (6S)-β-6-hydroxy-1,4,5,6-tetrahydronicotinamide-adenine-dinucleotide hydro-lyase(ATP-hydrolysing); (6S)-6-β-hydroxy-1,4,5,6-tetrahydronicotinamide-adenine-dinucleotide hydro-lyase (ATP-hydrolysing; NADH-forming)

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 4.2.1.93

CAS No.

116669-08-0

Reaction

(1) ATP + (6S)-6β-hydroxy-1,4,5,6-tetrahydronicotinamide-adenine dinucleotide = ADP + phosphate + NADH; (2) ATP + (6S)-6β-hydroxy-1,4,5,6-tetrahydronicotinamide-adenine dinucleotide phosphate = ADP + phosphate + NADPH

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.