Creative Enzymes®

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