Creative Enzymes®

nitric-oxide synthase [NAD(P)H]

Cat. No. EXWM-0764

Lot. No. (See product label)

Introduction

Description	Binds heme (iron protoporphyrin IX) and tetrahydrobiopterin. Most of the bacterial and archaeal enzymes consist of only an oxidase domain and function together with bacterial ferredoxins. The enzyme from the Δ-proteobacterium Sorangium cellulosum also includes a reductase domain that binds FAD, FMN and a [2Fe-2S] cluster. The similar enzymes from plants and animals use only NADPH as acceptor (cf. EC 1.14.13.39).
Synonyms	nitric oxide synthetase; NO synthase

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.14.13.165
Reaction	2 L-arginine + 3 NAD(P)H + 3 H+ + 4 O2 = 2 L-citrulline + 2 nitric oxide + 3 NAD(P)+ + 4 H2O (overall reaction); (1a) 2 L-arginine + 2 NAD(P)H + 2 H+ + 2 O2 = 2 Nω-hydroxy-L-arginine + 2 NAD(P)+ + 2 H2O; (1b) 2 Nω-hydroxy-L-arginine + NAD(P)H + H+ + 2 O2 = 2 L-citrulline + 2 nitric oxide + NAD(P)+ + 2 H2O
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 ℃.