

nitric-oxide synthase (NADPH)

Cat. No. EXWM-0846

Lot. No. (See product label)

Introduction

- **Description** Binds FAD, FMN, heme (iron protoporphyrin IX) and tetrahydrobiopterin. This eukaryotic enzyme, which is found in plants and animals, consists of oxygenase and reductase domains that are linked via a regulatory calmodulin-binding domain. Upon calcium-induced calmodulin binding, the reductase and oxygenase domains form a complex, allowing electrons to flow from NADPH via FAD and FMN to the active center. May produce superoxide under certain conditions. cf. EC 1.14.13.165, nitric-oxide synthase [NAD(P)H dependent].
- *Synonyms* nitric oxide synthetase; endothelium-derived relaxation factor-forming enzyme; endothelium-derived relaxing factor synthase; NO synthase; NADPH-diaphorase

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.14.13.39
CAS No.	125978-95-2
Reaction	2 L-arginine + 3 NADPH + 3 H+ + 4 O2 = 2 L-citrulline + 2 nitric oxide + 3 NADP+ + 4 H2O (overall reaction); (1a) 2 L-arginine + 2 NADPH + 2 H+ + 2 O2 = 2 N ω -hydroxy-L-arginine + 2 NADP+ + 2 H2O; (1b) 2 N ω -hydroxy-L-arginine + NADPH + H+ + 2 O2 = 2 L-citrulline + 2 nitric oxide + NADP+ + 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 °C for short term. For long term storage, store it at -20 °C~-80 °C.