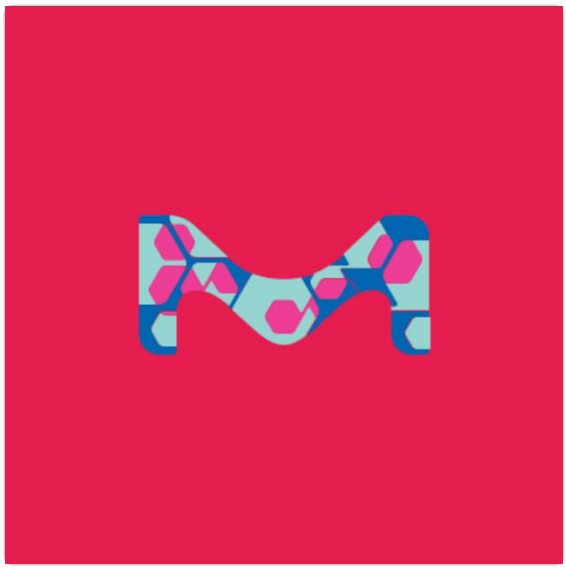
F0628 ▶ Sigma-Aldrich®

Ferredoxin-NADP+ Reductase from *Spinacia oleracea* (spinach)

(0)

lyophilized powder, ≥15 units/mg solid, secondary activity: ≥10 units/mg solid NADPH diaphorase



Toutes les photos (1)

Synonyme(s):
Ferridoxin-NADP+ oxidoreductase

Numéro CAS:
9029-33-8

Numéro de classification (Commission des enzymes):
1.18.1.2 (BRENDA, IUBMB)

Numéro MDL:
MFCD00131050

NACRES:
NA.54

Select an Option

Référence

F0628-1UN

1 UNIT

185,00 €

Disponible pour expédition le 07 octobre 2022 - **De**

1

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PRODUITS RECOMMANDÉS

Sigma-Aldrich

F3013

Ferredoxin from *Spinacia oleracea* (spinach)

lyophilized powder, Ferredoxin ≥15 wt. %

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PROPRIÉTÉS

Forme

lyophilized powder

lyophilized powder

Niveau de qualité
200

specific activity
≥15 units/mg solid

Activité étrangère
NADH diaphorase activity ≤10 units/mg solid

Temp. de stockage
−20°C

DESCRIPTION

Description générale

Ferredoxin-NADP$^+$ Reductase is a ferredoxin-soluble partner with a molar ratio to PSI of 0.9 and 3.

Application

Ferredoxin-NADP$^+$ Reductase from *Spinacia oleracea* (spinach) has been used to test the effect of potential protein partners on the activity of the glyceraldehyde-3-phosphate dehydrogenase (GAPDH)−CP12 preparation. It has also been used in standard assay conditions for phycocyanobilin:ferredoxin oxidoreductase (PcyA) enzyme assay.

Ferredoxin-NADP$^+$ Reductase was used in *in vitro* ferredoxin-dependent desaturation of fatty acids in cyanobacterial thylakoid membranes. It was also used to regulate glyceraldehyde-3-phosphate dehydrogenase.

Actions biochimiques/physiologiques

Ferredoxin-NADP$^+$ reductase catalyzes the reversible conversion of reduced ferredoxin to oxidized ferredoxin during photosynthesis. Ferredoxin-NADP(H) reductase constitutes a family of hydrophilic FAD-containing monomeric enzymes that deliver NADPH or low potential one-electron donors to redox-based metabolisms in plastids, mitochondria, and bacteria.

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Définition de l'unité

One unit will reduce 1.0 millimole of cytochrome C per min at pH 7.5 at 25 °C in the presence of spinach ferredoxin and NADP.

INFORMATIONS SUR LA SÉCURITÉ

Code de la classe de stockage
13 - Non Combustible Solids

WGK
WGK 3

Flash Point(F)
Not applicable

Point d'éclair C
Not applicable

Équipement de protection individuelle
Eyeshields, Gloves, type N95 (US)

DOCUMENTATION

Certificat d'analyse

Saisir un numéro de lot pour rechercher un certificat d'analyse (COA).

Numéro de lot

e.g. 023J5431

Comment saisir un numéro de lot (COA)

Rechercher

Certificat d'origine

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Numéro de lot

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Comment saisir un numéro de lot (COO)

Rechercher

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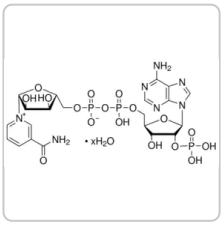
Enzyme Explorer

FDS

LES CLIENTS ONT ÉGALEMENT CONSULTÉ



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N5755

β-Nicotinamide adenine dinucleotide phosphate hydrate

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ARTICLES REVUS PAR DES PAIRS

Open questions in ferredoxin-NADP+ reductase catalytic mechanism.

Néstor Carrillo et al.
European journal of biochemistry, 270(9), 1900-1915 (2003-04-24)

Ferredoxin (flavodoxin)-NADP(H) reductases (FNR) are ubiquitous flavoenzymes that deliver NADPH or low potential one-electron donors (ferredoxin, flavodoxin) to redox-based metabolisms in plastids, mitochondria and bacteria. The plant-type reductase is also the basic prototype for one of the major families of

A Conserved Histidine-Aspartate Pair Is Required for Exovinyl Reduction of Biliverdin by a Cyanobacterial Phycocyanobilin:Ferredoxin Oxidoreductase

Tu SL, et al.
The Journal of Biological Chemistry, 281(6), 3127-3136 (2006)

Glyceraldehyde-3-phosphate dehydrogenase is regulated by ferredoxin-NADP reductase in the diatom Asterionella formosa.

Malika Mekhalfi et al.
The New phytologist, 203(2), 414-423 (2014-05-07)

Diatoms are a widespread and ecologically important group of heterokont algae that contribute c. 20% to global productivity. Previous work has shown that regulation of their key Calvin cycle enzymes differs from that of the Plantae, and that in crude

Glyceraldehyde-3-phosphate dehydrogenase is regulated by ferredoxin-NADP reductase in the diatom Asterionella formosa

Mekhalfi M, et al.
The New phytologist, 203, 414-423 (2014)

Ferredoxin-NADP+ Reductase KINETICS OF ELECTRON TRANSFER, TRANSIENT INTERMEDIATES, AND CATALYTIC ACTIVITIES STUDIED BY FLASH-ABSORPTION SPECTROSCOPY WITH ISOLATED PHOTOSYSTEM I AND FERREDOXIN

Cassan N, et al.
The Journal of Biological Chemistry, 280(28), 25960-25972 (2005)

Afficher tous les articles scientifiques apparentés

PROTOCOLES ET ARTICLES SCIENTIFIQUES

Protocoles

Enzymatic Assay of Ferredoxin NADP Reductase (EC 1.18.12)

Enzymatic Assay of Ferredoxin NADP Reductase - To standardize a procedure for the enzymatic assay of Ferredoxin NADP Reductase (EC.1.18.12).

PRODUITS CONSULTÉS RÉCEMMENT

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F0556

Fibronectin solution human fibroblasts

cell culture derived, ~0.5 mg/mL, sterile-filtered, BioReagent, suitable for cell culture

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Évaluations

★★★★★

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Questions

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