

cytokinin dehydrogenase

Cat. No. EXWM-1566

Lot. No. (See product label)

Introduction

Description

A flavoprotein(FAD). Catalyses the oxidation of cytokinins, a family of N6-substituted adenine derivatives that are plant hormones, where the substituent is a dimethylallyl or other prenyl group. Although this activity was previously thought to be catalysed by a hydrogen-peroxide-forming oxidase, this enzyme does not require oxygen for activity and does not form hydrogen peroxide. 2,6-Dichloroindophenol, methylene blue, nitroblue tetrazolium, phenazine methosulfate and Cu(II) in the presence of imidazole can act as acceptors. This enzyme plays a part in regulating rice-grain production, with lower levels of the enzyme resulting in enhanced grain production.

Synonyms

N6-dimethylallyladenine:(acceptor) oxidoreductase; 6-N-dimethylallyladenine:acceptor oxidoreductase; OsCKX2; CKX; cytokinin oxidase/dehydrogenase

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 1.5.99.12

CAS No.

55326-39-1

Reaction

N6-dimethylallyladenine + acceptor + H₂O = adenine + 3-methylbut-2-enal + reduced acceptor

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.