Creative Enzymes®

violaxanthin de-epoxidase

Cat. No. EXWM-1269

Lot. No. (See product label)

Introduction

Description	Along with EC 1.14.13.90, zeaxanthin epoxidase, this enzyme forms part of the xanthophyll (or violaxanthin) cycle for controlling the concentration of zeaxanthin in chloroplasts. It is activated by a low pH of the thylakoid lumen (produced by high light intensity). Zeaxanthin induces the dissipation of excitation energy in the chlorophyll of the light-harvesting protein complex of photosystem II. In higher plants the enzyme reacts with all-trans-diepoxides, such as violaxanthin, and all-trans-monoepoxides, but in the alga Mantoniella squamata, only the diepoxides are good substrates.
Synonyms	VDE

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.23.5.1
CAS No.	57534-73-3
Reaction	violaxanthin + 2 L-ascorbate = zeaxanthin + 2 L-dehydroascorbate + 2 H2O (overall reaction); (1a) violaxanthin + L-ascorbate = antheraxanthin + L-dehydroascorbate + H2O; (1b) antheraxanthin + L-ascorbate = zeaxanthin + L-dehydroascorbate + 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 ℃.