Creative Enzymes®

red chlorophyll catabolite reductase

Cat. No. EXWM-1393

Lot. No. (See product label)

Introduction

Description	The enzyme participates in chlorophyll degradation, which occurs during leaf senescence and fruit ripening in higher plants. The reaction requires reduced ferredoxin, which is generated from NADPH produced either through the pentose-phosphate pathway or by the action of photosystem I. This reaction takes place while red chlorophyll catabolite is still bound to EC 1.14.15.17, pheophorbide a oxygenase. Depending on the plant species used as the source of enzyme, one of two possible C-1 epimers of primary fluorescent chlorophyll catabolite (pFCC), pFCC-1 or pFCC-2, is normally formed, with all genera or species within a family producing the same isomer. After modification and export, pFCCs are eventually imported into the vacuole, where the acidic environment causes their non-enzymic conversion into colourless breakdown products called non-fluorescent chlorophyll catabolites (NCCs).
Synonyms	RCCR; RCC reductase; red Chl catabolite reductase

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.3.7.12
Reaction	primary fluorescent chlorophyll catabolite + 2 oxidized ferredoxin [iron-sulfur] cluster = red chlorophyll catabolite + 2 reduced ferredoxin [iron-sulfur] cluster + 2 H+
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 ℃.