Creative Enzymes®

1-hydroxycarotenoid 3,4-desaturase

Cat. No. EXWM-1429

Lot. No. (See product label)

Introduction

Description	The enzymes from Rubrivivax gelatinosus and Rhodobacter sphaeroides prefer the acyclic carotenoids (e.g. 1-hydroxy-1,2-dihydroneurosporene, 1-hydroxy-1,2-dihydrolycopene) as substrates. The conversion rate for the 3,4-desaturation of the monocyclic 1'-hydroxy-1',2'-dihydro-γ-carotene is lower. The enzyme from the marine bacterium strain P99-3 shows high activity with the monocyclic carotenoid 1'-hydroxy-1',2'-dihydro-γ-carotene. The enzyme from Rhodobacter sphaeroides utilizes molecular oxygen as the electron acceptor in vitro. However, oxygen is unlikely to be the natural electron acceptor under anaerobic conditions.
Synonyms	CrtD; hydroxyneurosporene desaturase; carotenoid 3,4-dehydrogenase; 1-hydroxy-carotenoid 3,4-dehydrogenase

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.3.99.27
Reaction	1-hydroxy-1,2-dihydrolycopene + acceptor = 1-hydroxy-3,4-didehydro-1,2-dihydrolycopene + 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 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.