

## 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- $\gamma$ -carotene is lower. The enzyme from the marine bacterium strain P99-3 shows high activity with the monocyclic carotenoid 1'-hydroxy-1',2'-dihydro- $\gamma$ -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 °C for short term. For long term storage, store it at -20 °C~-80 °C.