

## 1,8-cineole synthase

Cat. No. EXWM-5119

Lot. No. (See product label)

### Introduction

#### Description

Requires  $Mn^{2+}$  or  $Zn^{2+}$ .  $Mg^{2+}$  is less effective than either. 1,8-Cineole is the main product from the enzyme with just traces of other monoterpenoids. The oxygen atom is derived from water. The reaction proceeds via linalyl diphosphate and  $\alpha$ -terpineol, the stereochemistry of both depends on the organism. However neither intermediate can substitute for geranyl diphosphate. The reaction in *Salvia officinalis* (sage) proceeds via (-)-(3R)-linalyl diphosphate while that in *Arabidopsis* (rock cress) proceeds via (+)-(3S)-linalyl diphosphate.

#### Synonyms

1,8-cineole cyclase; geranyl pyrophosphate:1,8-cineole cyclase; 1,8-cineole synthetase

### Product Information

#### Form

Liquid or lyophilized powder

#### EC Number

EC 4.2.3.108

#### CAS No.

110637-19-9

#### Reaction

geranyl diphosphate +  $H_2O$  = 1,8-cineole + diphosphate

#### 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.