

## pheophorbidase

Cat. No. EXWM-3511

Lot. No. (See product label)

### Introduction

#### Description

This enzyme forms part of the chlorophyll degradation pathway, and is found in higher plants and in algae. In higher plants it participates in de-greening processes such as fruit ripening, leaf senescence, and flowering. The enzyme exists in two forms: type 1 is induced by senescence whereas type 2 is constitutively expressed. The enzyme is highly specific for pheophorbide as substrate (with a preference for pheophorbide a over pheophorbide b) as other chlorophyll derivatives such as protochlorophyllide a, pheophytin a and c, chlorophyll a and b, and chlorophyllide a cannot act as substrates. Another enzyme, called pheophorbide demethoxycarbonylase (PDC), produces pyropheophorbide a from pheophorbide a without forming an intermediate although the precise reaction is not yet known.

#### Synonyms

phedase; PPD

### Product Information

#### Form

Liquid or lyophilized powder

#### EC Number

EC 3.1.1.82

#### Reaction

pheophorbide a + H<sub>2</sub>O = pyropheophorbide a + methanol + CO<sub>2</sub> (overall reaction);  
(1a) pheophorbide a + H<sub>2</sub>O = C-132-carboxypyropheophorbide a + methanol; (1b)  
C-132-carboxypyropheophorbide a = pyropheophorbide a + CO<sub>2</sub> (spontaneous)

#### 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.