

## carboxybiotin decarboxylase

Cat. No. EXWM-5309

Lot. No. (See product label)

### Introduction

#### Description

The integral membrane protein MadB from the anaerobic bacterium *Malonomonas rubra* is a component of the multienzyme complex EC 4.1.1.89, biotin-dependent malonate decarboxylase. The free energy of the decarboxylation reaction is used to pump Na<sup>+</sup> out of the cell. The enzyme is a member of the Na<sup>+</sup>-translocating decarboxylase family, other members of which include EC 4.1.1.3 (oxaloacetate decarboxylase) and EC 4.1.1.41 (methylmalonyl-CoA decarboxylase).

#### Synonyms

MadB; carboxybiotin protein decarboxylase

### Product Information

#### Form

Liquid or lyophilized powder

#### EC Number

EC 7.2.4.1 (Formerly EC 4.3.99.2)

#### Reaction

a carboxybiotinyl-[protein] + n Na<sup>+</sup><sub>in</sub> + H<sup>+</sup><sub>out</sub> = CO<sub>2</sub> + a biotinyl-[protein] + n Na<sup>+</sup><sub>out</sub> (n = 1-2)

#### 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.