

## [butirosin acyl-carrier protein]-L-glutamate ligase

Cat. No. EXWM-5697

Lot. No. (See product label)

### Introduction

#### Description

Catalyses two steps in the biosynthesis of the side chain of the aminoglycoside antibiotics of the butirosin family. The enzyme adds one molecule of L-glutamate to a dedicated acyl-carrier protein, and following decarboxylation of the product by EC 4.1.1.95, L-glutamyl-[Btrl acyl-carrier protein] decarboxylase, adds a second L-glutamate molecule. Requires  $Mg^{2+}$  or  $Mn^{2+}$ , and activity is enhanced in the presence of  $Mn^{2+}$ .

#### Synonyms

[Btrl acyl-carrier protein]-L-glutamate ligase; Btrj

### Product Information

#### Form

Liquid or lyophilized powder

#### EC Number

EC 6.2.1.39

#### Reaction

(1)  $ATP + L\text{-glutamate} + \text{Btrl acyl-carrier protein} = ADP + \text{phosphate} + L\text{-glutamyl-[Btrl acyl-carrier protein]}$ ; (2)  $ATP + L\text{-glutamate} + 4\text{-amino butanoyl-[Btrl acyl-carrier protein]} = ADP + \text{phosphate} + 4\text{-(}\gamma\text{-L-glutamylamino)butanoyl-[Btrl acyl-carrier protein]}$

#### 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.