

## [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; Btrl

### 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  $+4\text{ }^{\circ}\text{C}$  for short term. For long term storage, store it at  $-20\text{ }^{\circ}\text{C} \sim -80\text{ }^{\circ}\text{C}$ .