

dapdiamide synthase

Cat. No. EXWM-5765

Lot. No. (See product label)

Introduction

Description The enzyme, characterized from the bacterium *Pantoea agglomerans*, is involved in biosynthesis of dapdiamide tripeptide antibiotics, a family of fumaramoyl- and epoxysuccinamoyl-peptides named for the presence of an (S)-2,3-diaminopropanoate (DAP) moiety and two amide linkages in their scaffold.

Synonyms DdaF; dapdiamide A synthase

Product Information

Form Liquid or lyophilized powder

EC Number EC 6.3.2.47

Reaction (1) $\text{ATP} + 3\text{-}\{[(2\text{E})\text{-}4\text{-amino-}4\text{-oxobut-}2\text{-enoyl]amino}\}\text{-L-alanine} + \text{L-valine} = \text{ADP} + \text{phosphate} + 3\text{-}\{[(2\text{E})\text{-}4\text{-amino-}4\text{-oxobut-}2\text{-enoyl]amino}\}\text{-L-alanyl-L-valine}$; (2) $\text{ATP} + 3\text{-}\{[(2\text{E})\text{-}4\text{-amino-}4\text{-oxobut-}2\text{-enoyl]amino}\}\text{-L-alanine} + \text{L-isoleucine} = \text{ADP} + \text{phosphate} + 3\text{-}\{[(2\text{E})\text{-}4\text{-amino-}4\text{-oxobut-}2\text{-enoyl]amino}\}\text{-L-alanyl-L-isoleucine}$; (3) $\text{ATP} + 3\text{-}\{[(2\text{E})\text{-}4\text{-amino-}4\text{-oxobut-}2\text{-enoyl]amino}\}\text{-L-alanine} + \text{L-leucine} = \text{ADP} + \text{phosphate} + 3\text{-}\{[(2\text{E})\text{-}4\text{-amino-}4\text{-oxobut-}2\text{-enoyl]amino}\}\text{-L-alanyl-L-leucine}$; (4) $\text{ATP} + 3\text{-}\{[(2\text{R},3\text{R})\text{-}3\text{-carbamoyloxiran-}2\text{-yl]carbonyl}\}\text{-amino}\}\text{-L-alanine} + \text{L-valine} = \text{ADP} + \text{phosphate} + 3\text{-}\{[(2\text{R},3\text{R})\text{-}3\text{-carbamoyloxiran-}2\text{-yl]carbonyl}\}\text{-amino}\}\text{-L-alanyl-L-valine}$

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.