

UDP-N-acetylmuramoyl-tripeptide-D-alanyl-D-alanine ligase

Cat. No. EXWM-5731

Lot. No. (See product label)

Introduction

Description Involved with EC 6.3.2.4 (D-alanine-D-alanine ligase), EC 6.3.2.7 (UDP-N-acetylmuramoyl-L-alanyl-D-glutamate-L-lysine ligase) or EC 6.3.2.13 (UDP-N-acetylmuramoyl-L-alanyl-D-glutamate-2,6-diaminopimelate ligase), EC 6.3.2.8 (UDP-N-acetylmuramate-L-alanine ligase) and EC 6.3.2.9 (UDP-N-acetylmuramoyl-L-alanine-D-glutamate ligase) in the synthesis of a cell-wall peptide ([click here](#)) for diagram. This enzyme also catalyses the reaction when the C-terminal residue of the tripeptide is meso-2,4-diaminoheptanedioate (acylated at its L-centre), linking the D-Ala-D-Ala to the carboxy group of the L-centre. This activity was previously attributed to EC 6.3.2.15, which has since been deleted.

Synonyms MurF synthetase; UDP-N-acetylmuramoyl-L-alanyl-D-glutamyl-L-lysyl-D-alanyl-D-alanine synthetase; UDP-N-acetylmuramoylalanyl-D-glutamyl-lysine-D-alanyl-D-alanine ligase; uridine diphosphoacetylmuramoylpentapeptide synthetase; UDPacetylmuramoylpentapeptide synthetase; UDP-MurNAc-L-Ala-D-Glu-L-Lys:D-Ala-D-Ala ligase

Product Information

Form Liquid or lyophilized powder

EC Number EC 6.3.2.10

CAS No. 55354-36-4

Reaction $\text{ATP} + \text{UDP-N-acetylmuramoyl-L-alanyl-}\gamma\text{-D-glutamyl-L-lysine} + \text{D-alanyl-D-alanine} = \text{ADP} + \text{phosphate} + \text{UDP-N-acetylmuramoyl-L-alanyl-}\gamma\text{-D-glutamyl-L-lysyl-D-alanyl-D-alanine}$

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.