

N-acetylmuramoyl-L-alanyl-D-glutamyl-L-lysyl-(N6-glycyl)-D-alanyl-D-alanine-diphosphoundecaprenyl-N-acetylglucosamine:glycine glycytransferase

Cat. No. EXWM-2290

Lot. No. (See product label)

Introduction

Description This enzyme catalyses the successive transfer of two Gly moieties from charged tRNAs to MurNAc-L-Ala-D-isoglutaminyl-L-Lys-(N6-Gly)-D-Ala-D-Ala-diphospho-ditrans,octacis-undecaprenyl-GlcNAc, attaching them to a Gly residue previously attached by EC 2.3.2.16 (lipid II:glycine glycytransferase) to the N6 of the L-Lys at position 3 of the pentapeptide. This is the second step in the synthesis of the pentaglycine interpeptide bridge that is used by Staphylococcus aureus for the crosslinking of different glycan strands to each other. The next step is catalysed by EC 2.3.2.18 (N-acetylmuramoyl-L-alanyl-D-glutamyl-L-lysyl-(N6-triglycine)-D-alanyl-D-alanine-diphosphoundecaprenyl-N-acetylglucosamine:glycine glycytransferase). This enzyme is essential for methicillin resistance.

Synonyms femA (gene name); N-acetylmuramoyl-L-alanyl-D-glutamyl-L-lysyl-(N6-glycyl)-D-alanyl-D-alanine-ditrans,octacis-diphosphoundecaprenyl-N-acetylglucosamine:glycine glycytransferase

Product Information

Form Liquid or lyophilized powder

EC Number EC 2.3.2.17

Reaction MurNAc-L-Ala-D-isoglutaminyl-L-Lys-(N6-Gly)-D-Ala-D-Ala-diphospho-ditrans,octacis-undecaprenyl-GlcNAc + 2 glycyl-tRNAGly = MurNAc-L-Ala-D-isoglutaminyl-L-Lys-(N6-tri-Gly)-D-Ala-D-Ala-diphospho-ditrans,octacis-undecaprenyl-GlcNAc + 2 tRNAGly

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.