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**Kelleher et al.**

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(54) **HIGH PURITY LIPOPEPTIDES**

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.  
  
This patent is subject to a terminal disclaimer.

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See application file for complete search history.

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(57) **ABSTRACT**

The invention discloses highly purified daptomycin and to pharmaceutical compositions comprising this compound. The invention discloses a method of purifying daptomycin comprising the sequential steps of anion exchange chromatography, hydrophobic interaction chromatography and anion exchange chromatography. The invention also discloses a method of purifying daptomycin by modified buffer enhanced anion exchange chromatography. The invention also discloses an improved method for producing daptomycin by fermentation of *Streptomyces roseosporus*. The invention also discloses high pressure liquid chromatography methods for analysis of daptomycin purity. The invention also discloses lipopeptide micelles and methods of making the micelles. The invention also discloses methods of using lipopeptide micelles for purifying lipopeptide antibiotics, such as daptomycin. The invention also discloses using lipopeptide micelles therapeutically.

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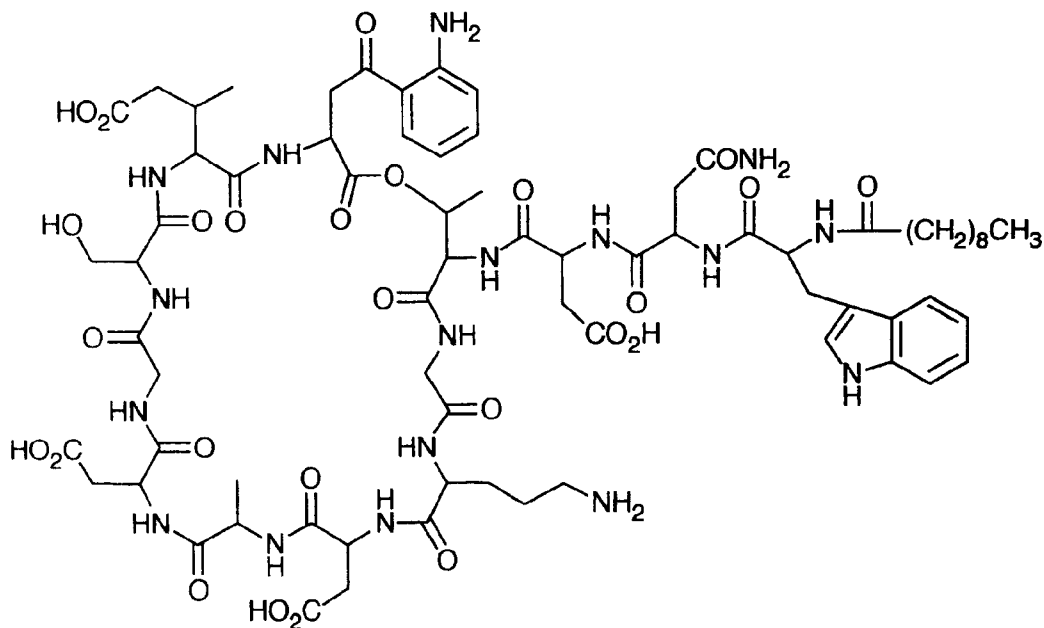


Fig. 1

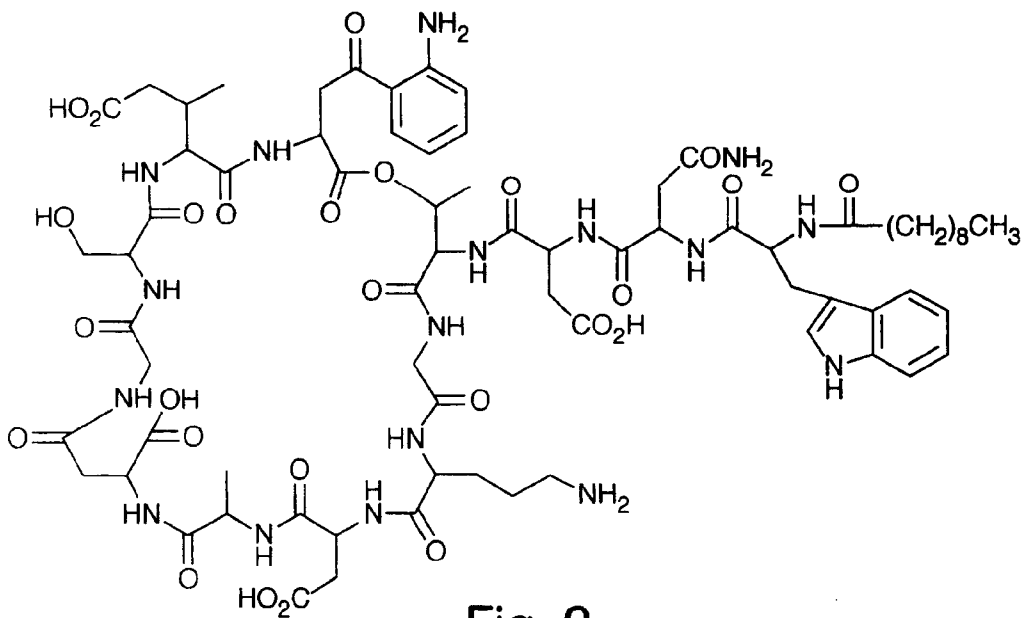


Fig. 2

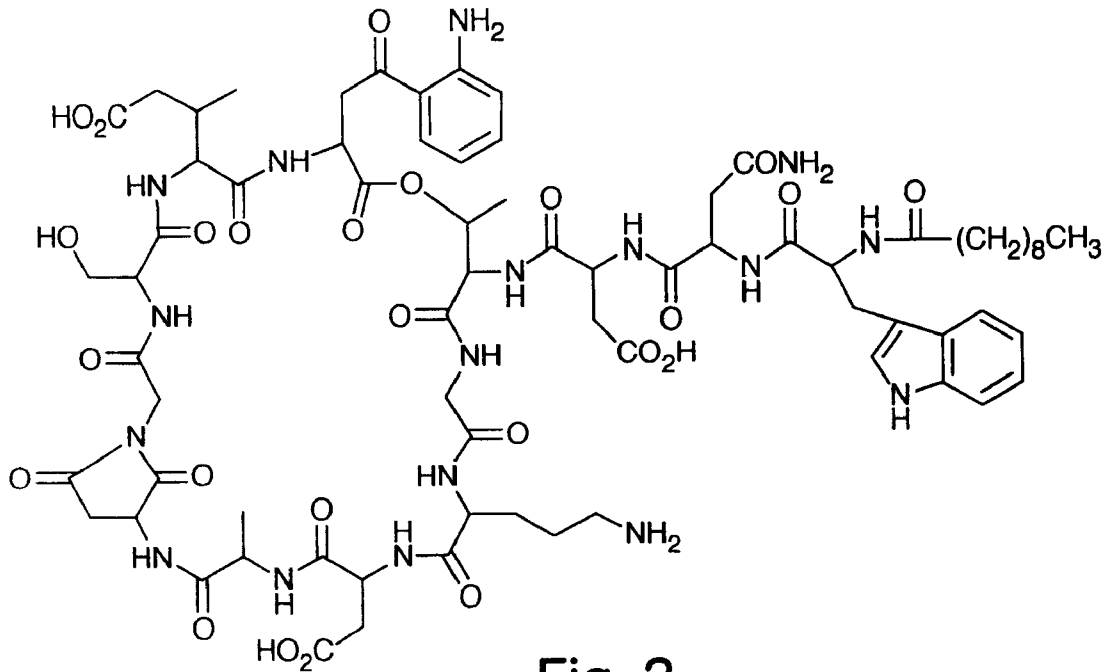


Fig. 3

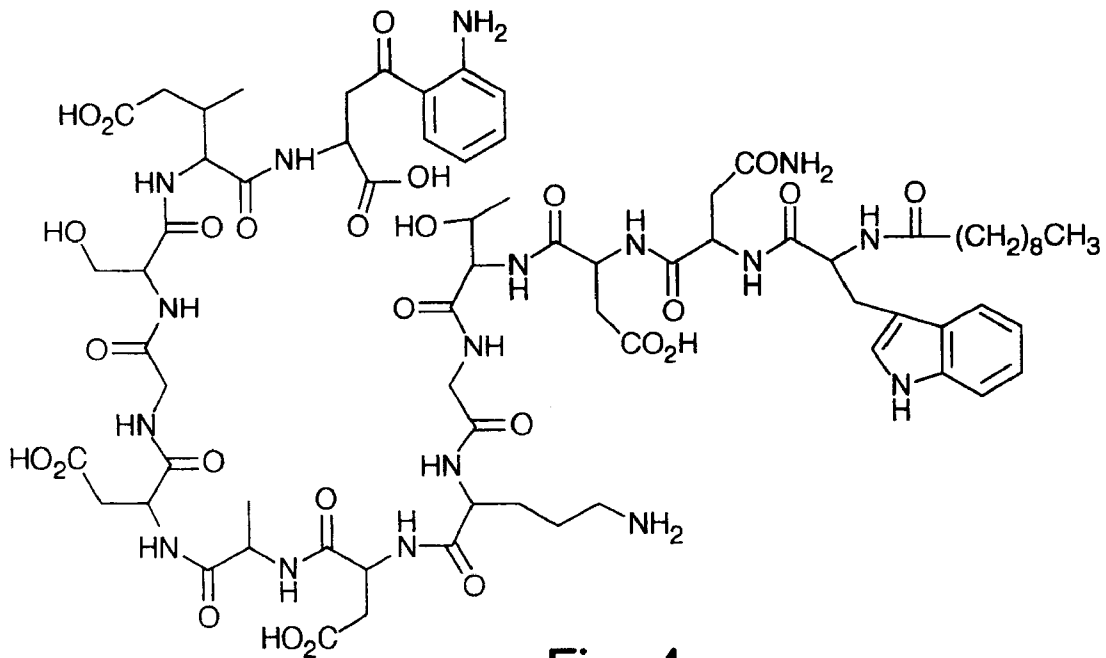


Fig. 4

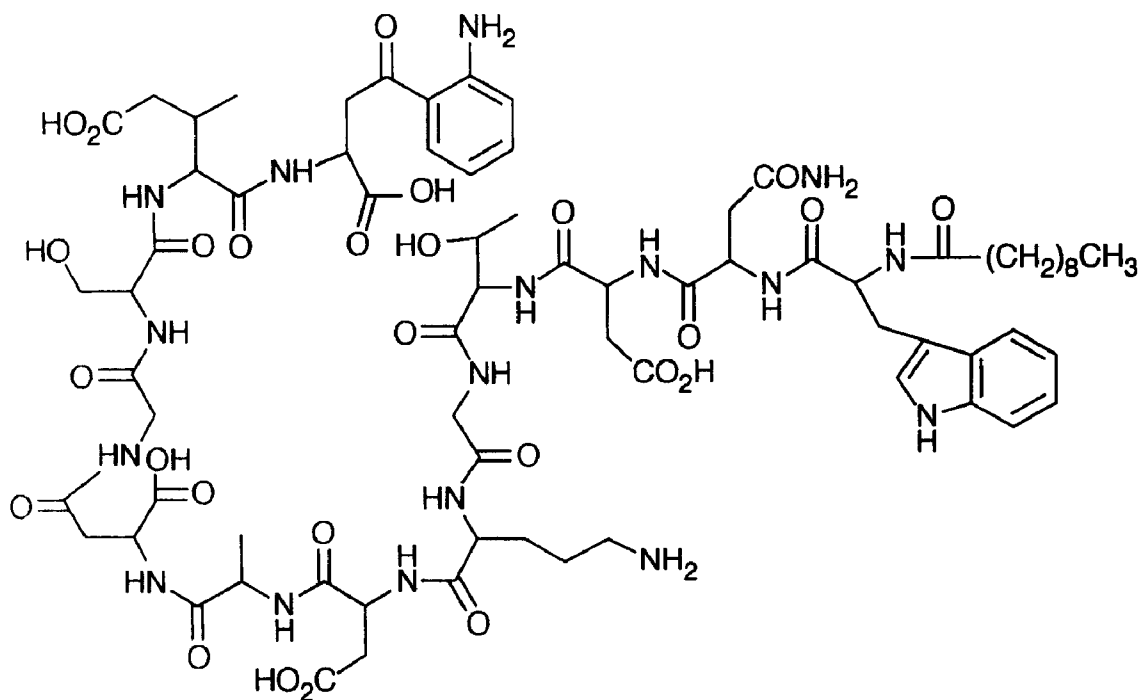


Fig. 5

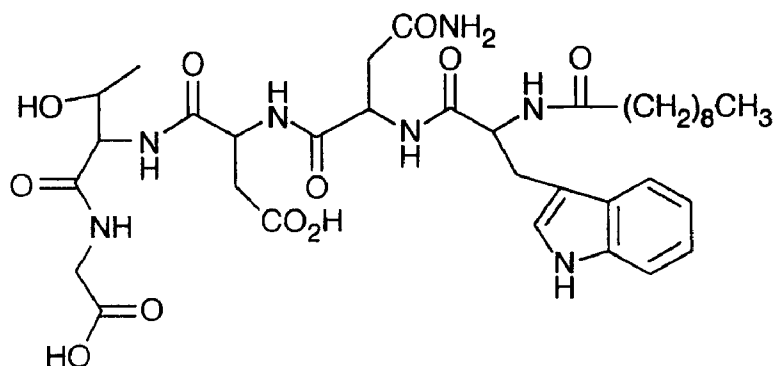


Fig. 6

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