WHAT IS CLAIMED IS:

1. A method for manufacturing a freeze-dried formulation for the treatment of staphylococcal infections comprising:

preparing a mixture consisting of 15-35 mole% of a first antibacterial protein having the amino acid sequence as set forth in SEQ. ID. NO: 1 and 55-85 mole% of a second antibacterial protein having the amino acid sequence as set forth SEQ. ID. NO: 2, by a biological process including a culture step which induced bacterial cells are incubated at 19℃ and the mixture has killing activity against all of the following *Staphylococcus* species: *Staphylococcus arlettae*, *Staphylococcus aureus*, *Staphylococcus auricularis*, *Staphylococcus carnosus*, *Staphylococcus carprae*, *Staphylococcus chromogenes*, *Staphylococcus cohnii*, *Staphylococcus delphini*, *Staphylococcus epidermidis*, *Staphylococcus equorum*, *Staphylococcus gallinarum*, *Staphylococcus hemolyticus*, *Staphylococcus hominis*, *Staphylococcus intermedius*, *Staphylococcus kloosii*, *Staphylococcus lentus*, *Staphylococcus lugdunensis*, *Staphylococcus muscae*, *Staphylococcus pasteuri*, *Staphylococcus saprophyticus*, *Staphylococcus warneri*, and *Staphylococcus xylosus*;

preparing a solution by mixing a poloxamer 188, a D-sorbitol, a L-histidine and the mixture of the first antibacterial protein and the second antibacterial protein; and

subjecting the solution to freeze-drying.

2. The method according to Claim 1, wherein the concentration of the mixture in the solution before freeze-drying is from 0.1 mg/mL to 30 mg/mL.

3. The method according to Claim 1, wherein the concentration of the poloxamer 188 in the solution before freeze-drying is from 0.1 g/L to 10 g/L.

4. The method according to Claim 1, wherein the concentration of the D-sorbitol in the solution before freeze-drying is from 1 g/L to 600 g/L.

5. The method according to Claim 1, wherein the concentration of the L-histidine in the solution before freeze-drying is from 0.1 g/L to 10 g/L.