CLAIMS

What is claimed is:

1. A pharmaceutical composition comprising:

    a θ-defensin or θ-defensin analog at a concentration of up to 20 $mgmL^{-1}$ in an aqueous solution comprising 0.5% to 1.5% v/v propylene glycol, wherein concentration of propylene glycol is selected to provide the pharmaceutical composition with a viscosity of up to 105 centipoise,

    wherein the pharmaceutical composition has a pH of from 6.0 to 7.0 and is formulated for parenteral administration.

2. The pharmaceutical composition of claim 1, further comprising an acetate salt.

3. The pharmaceutical composition of claim 1 or 2, wherein the concentration of θ-defensin or θ-defensin analog is selected such that pharmacologic potency of the θ-defensin or θ-defensin analog is increased by at least 10-fold relative to a similar concentration of the θ-defensin or θ-defensin analog provided in a normal saline solution.

4. The pharmaceutical composition of any one of claims 1 to 3, wherein the concentration of θ-defensin or θ-defensin analog is selected such that pharmacologic potency of the θ-defensin or θ-defensin analog is increased by at least 40-fold relative to a similar concentration of the θ-defensin or θ-defensin analog provided in a normal saline solution.

5. The pharmaceutical composition of any one of claims 1 to 4, wherein the chronic inflammatory condition is selected from the group consisting of rheumatoid arthritis, inflammatory bowel disease, inflammation associated with cancer, diabetes, and a chronic disease characterized by dysregulated or unresolved chronic inflammation.

6. The pharmaceutical composition of any one of claims 1 to 5, wherein parenteral administration is selected from the group consisting of subcutaneous injection, intramuscular injection, or intravenous injection.

7. The pharmaceutical composition of any one of claims 1 to 6, wherein the θ-defensin analog is selected from the group consisting of cyclic octadecapeptide, a cyclic heptadecapeptide, a cyclic hexadecapeptide, a cyclic pentadecapeptide, and a cyclic tetradecapeptide.

8. The pharmaceutical composition of any one of claims 1 to 7, wherein the pharmaceutical composition comprises 1% v/v propylene glycol and 20mM acetate, and has a pH of 6.5.

9. The pharmaceutical composition of any one of claims 1 to 8 for treating a chronic inflammatory condition.

10. A method of sterilizing an aqueous preparation comprising a θ-defensin or a θ-defensin analog, comprising:

providing the θ-defensin or the θ-defensin analog in an aqueous buffer comprising the θ-defensin or the θ-defensin analog at a concentration of at least 1 $mgmL^{-1}$ and propylene glycol at from 0.5% to 1.5% v/v; and

passing the aqueous buffer through a filter having a pore size of 0.2μm or less,

, wherein the concentration of propylene glycol is selected to provide the pharmaceutical composition with a viscosity of up to 105 centipoise.

11. The method of claim 10, wherein the aqueous buffer further comprises an acetate salt.

12. The method of claim 10 or 11, wherein the aqueous θ-defensin preparation has a pH of 6.0 to 7.0.

13. The method of any one of claims 10 to 12, wherein the θ-defensin or θ-defensin analog is provided at $10mgmL^{-1}$ or more.