What is claimed is:

1. An immunogenic fusion protein comprising an amino acid sequence of SEQ ID NO: 43.

2. A polynucleotide encoding the immunogenic fusion protein of claim 1.

3. A host cell, comprising the polynucleotide of claim 2.

4. A composition comprising the immunogenic fusion protein of claim 1 and a pharmaceutically acceptable carrier.

5. The composition of claim 4, wherein the immunogenic fusion protein is (a) glycosylated or (b) not glycosylated.

6. The composition of claim 4 or 5, further comprising at least one adjuvant, optionally wherein the adjuvant comprises aluminum hydroxide, aluminum phosphate or aluminum sulfate.

7. The composition of claim 6, wherein the aluminum hydroxide comprises Alhydrogel®.

8. A composition comprising:
i) a population of purified immunogenic fusion proteins, wherein at least about 90% of the purified immunogenic fusion proteins are full-length purified immunogenic fusion proteins comprising the amino acid sequence of SEQ ID NO: 43;
ii) less than 80,000 ng of host cell protein/mg of purified immunogenic fusion protein; and/or
iii) less than 17 EU of endotoxin/mg of purified immunogenic fusion protein.

9. The composition of claim 8, wherein the composition comprises:
i) a population of purified immunogenic fusion proteins, wherein about 95%, about 96%, about 97%, about 98% or about 99% of the purified immunogenic fusion proteins are full-

length purified immunogenic fusion proteins comprising the amino acid sequence of SEQ ID NO: 43;
ii) less than 50 ng of host cell protein/mg of purified immunogenic fusion protein; and/or
iii) less than 2 EU of endotoxin/mg of purified immunogenic fusion protein.

10. A method of producing an immunogenic fusion protein, comprising the steps of:
a) culturing a population of the host cells expressing an immunogenic fusion protein comprising the amino acid sequence of SEQ ID NO: 43 in a condition suitable for the population of host cells to produce the immunogenic fusion protein;
b) disrupting the cell membranes of the host cells;
c) recovering a sample comprising the immunogenic fusion protein and one or more impurities;
d) contacting the sample comprising the immunogenic fusion protein with a hydrophobic interaction chromatography resin and eluting the immunogenic fusion protein from the hydrophobic interaction chromatography resin under conditions that allow for preferential detachment of the immunogenic fusion protein, thereby obtaining an eluate comprising the immunogenic fusion protein;
e) subjecting the eluate comprising the immunogenic fusion protein of step **d)** to a flow through anion exchange resin, thereby obtaining an eluate comprising the immunogenic fusion protein; and
f) contacting the eluate comprising the immunogenic fusion protein of step **e)** with a multi-modal chromatography resin and eluting the immunogenic fusion protein from the multi-modal chromatography resin under conditions that allow for preferential detachment of the immunogenic fusion protein, thereby obtaining an eluate comprising the immunogenic fusion protein.

11. The method of claim 10, further comprising the step of:
g) contacting the eluate comprising the immunogenic fusion protein of step **f)** with a flow through anion exchange membrane; thereby obtaining an eluate comprising the immunogenic fusion protein;
optionally further comprising the steps of:
h) contacting the eluate comprising the immunogenic fusion protein of step **g)** with an ultrafiltration/diafiltration membrane; and

i) washing the immunogenic fusion protein from the ultrafiltration/diafiltration membrane under conditions that allow for preferential detachment of the immunogenic fusion protein, thereby obtaining an eluate comprising the immunogenic fusion protein
optionally further comprising the step of:
j) contacting the eluate comprising the immunogenic fusion protein of step **i)** with a 0.2 μm filter.

12. A composition comprising a purified immunogenic fusion protein produced by the method of claim 10 or 11.

13. A formulation comprising:
i) an immunogenic fusion protein comprising the amino acid sequence of SEQ ID NO: 43;
ii) a surfactant;
iii) a buffer; and
iv) a salt.

14. The formulation of claim 13, wherein the surfactant is at a concentration of about 175 μg/mL to about 375 μg/mL.

15. The formulation of claim 13, wherein
i) the immunogenic fusion protein is at a concentration of about 0.5 mg/mL to about 1.5 mg/mL;
ii) the surfactant is at a concentration of about 175 μg/mL to about 375 μg/mL;
iii) the buffer is at a concentration of about 5 mM to about 20 mM;
iv) the salt is at a concentration of about 50 mM to about 200 mM; and
wherein the pH level of the formulation is between pH 6 and pH 9;
optionally wherein
i) the immunogenic fusion protein is at a concentration of about 0.8 mg/mL to about 1.2 mg/mL;
ii) the surfactant is at a concentration of about 275 μg/mL;
iii) the buffer is at a concentration of about 10 mM;
iv) the salt is at a concentration of about 154 mM; and
wherein the pH level of the formulation is about 7.4.

16. The formulation of any one of claims 13-15, wherein the buffer comprises sodium phosphate, the salt comprises sodium chloride (NaCl) and/or the surfactant comprises polysorbate 20.

17. The formulation of any one of claims 13-16, further comprising an adjuvant, optionally wherein the adjuvant is selected from the group consisting of aluminum hydroxide, aluminum phosphate and aluminum sulfate; and wherein the adjuvant is at a concentration of about 0.5 mg/mL to about 2 mg/mL, preferably wherein the adjuvant is at a concentration of about 1 mg/mL.

18. The formulation of claim 17, wherein the adjuvant is aluminum hydroxide, optionally wherein the aluminum hydroxide is Alhydrogel®.

19. A formulation comprising:
(a) about 1.0 mg/mL of an immunogenic fusion protein comprising the amino acid sequence of SEQ ID NO: 43, about 275 μg/mL polysorbate 20, about 10 mM sodium phosphate and about 154 mM sodium chloride, and wherein the pH level of the formulation is about 7.4;
(b) about 20 μg/mL of an immunogenic fusion protein comprising the amino acid sequence of SEQ ID NO: 43, about 275 μg/mL polysorbate 20, about 1 mg/mL of aluminum hydroxide in 9 mM of sodium phosphate and about 139 mM sodium chloride, and wherein the pH level of the formulation is about 7.4;
(c) about 60 μg/mL of an immunogenic fusion protein comprising the amino acid sequence of SEQ ID NO: 43, about 275 μg/mL polysorbate 20, about 1 mg/mL of aluminum hydroxide in 9 mM of sodium phosphate and about 139 mM sodium chloride, and wherein the pH level of the formulation is about 7.4;
(d) about 120 μg/mL of an immunogenic fusion protein comprising the amino acid sequence of SEQ ID NO: 43, about 275 μg/mL polysorbate 20, about 1 mg/mL of aluminum hydroxide in 9 mM of sodium phosphate and about 139 mM sodium chloride, and wherein the pH level of the formulation is about 7.4; or
(e) about 180 μg/mL of an immunogenic fusion protein comprising the amino acid sequence of SEQ ID NO: 43, about 275 μg/mL polysorbate 20, about 1 mg/mL of aluminum hydroxide in 9 mM of sodium phosphate and about 139 mM sodium chloride, and wherein the pH level of the formulation is about 7.4).

20. A method of

(a) inducing a protective immune response in a subject comprising administering to the subject the composition of any one of claims 4-9 or 12 or the formulation of any one of claims 13-19;

(b) immunizing a subject against an infection caused by *Streptococcus pneumoniae,* the method comprising administering to the subject the composition of any one of claims 4-9 or 12 or the formulation of any one of claims 13-19; or

(c) prophylactically preventing, or reducing the occurrence of a condition, disease, or infection caused by *Streptococcus pneumoniae*, in a subject in need thereof comprising administering to the subject the composition of any one of claims 4-9 or 12 or the formulation of any one of claims 13-19.

21. The method of claim 20, wherein the subject is administered with at least one dose of the immunogenic fusion protein, optionally wherein the subject is administered with no more than two doses of the immunogenic fusion protein.

22. The method of claim 21, wherein the dose further comprises about 1 mg/mL of aluminum hydroxide.

23. The method of claim 21 or 22, wherein the dose comprises about 1 μg to about 150 μg of the immunogenic fusion protein, optionally wherein the dose comprises

(a) about 10 μg of the immunogenic fusion protein;

(b) about 30 μg of the immunogenic fusion protein;

(c) about 60 μg of the immunogenic fusion protein; or

(d) about 90 μg of the immunogenic fusion protein.

24. The method of any one of claims 21-23, wherein the amount of time between each dose is from about four weeks to about one year.

25. The method of claim 24, wherein the amount of time between each dose is about one week, about two weeks, about three weeks or about four weeks.

26. The method of claim 25, wherein the amount of time between each dose is about four weeks.

27. The method of any one of claims 20-26, wherein the composition or the formulation is administered by parenteral administration or by intramuscular injection.

28. The method of any one of claims 20-27, wherein the subject is between 0 and 80 years of age, optionally wherein the subject is (a) between 0 and 2 years of age; (b) between 18 and 50 years of age or (c) between 60 and 75 years of age.