What is claimed is:

1. A method for reducing the viscosity of a formulation containing citrate and a therapeutic protein, the method comprising; (a) providing a formulation comprising citrate; and (b) adding sodium chloride to the formulation to a concentration of about 20 mM to about 150 mM, wherein the viscosity of the formulation with the sodium chloride is reduced compared to the viscosity of the same formulation without sodium chloride.

2. The method of claim 1 wherein the sodium chloride is added to a concentration selected from the group consisting of about 25 mM, about 50 mM, and about 100mM.

3. The method of any preceding claim, wherein the viscosity of the formulation with sodium chloride is reduced by at least about 5%, at least about 10%, at least about 15%, at least about 20%, at least about 25%, at least about 30%, or at least about 40% compared to the viscosity of the formulation in the absence of sodium chloride.

4. The method of any preceding claim, wherein the viscosity of the formulation with sodium chloride is less than about 50 cP, less than about 45 cP, less than about 40 cP, or less than about 35 cP.

5. A method for reducing the viscosity of a formulation containing citrate and a therapeutic protein, the method comprising; (a) providing a formulation comprising citrate; and (b) adding glycine and/or arginine to the formulation to a concentration of about 0.4% w/v to about 1.1% w/v, wherein the viscosity of the formulation with the glycine and/or arginine is reduced compared to the viscosity of the same formulation without glycine and/or arginine.

6. The method of claim 5 wherein the glycine and/or arginine is added to a concentration selected from the group consisting of about 0.5% w/v and about 1% w/v.

7. The method of claim 5 or 6, wherein the viscosity of the formulation with glycine and/or arginine is reduced by at least about 5%, at least about 10%, at least about 15%, at least about 20%, at least about 25%, at least about 30%, at least about 40%, or at least about 50% compared to the viscosity of the formulation in the absence of glycine and/or arginine.

8. The method of claim 5, 6, or 7, wherein the viscosity of the formulation with glycine and/or arginine is less than about 50 cP, less than about 45 cP, less than about 40 cP, less than about 35 cP, less than about 30 cP, or less than about 25 cP.

9. A method for reducing the viscosity of a formulation containing citrate and a therapeutic protein, the method comprising; (a) providing a formulation comprising citrate; and (b) adding phenylalanine to the formulation to a concentration of about 0.4% w/v to about 1.1% w/v, wherein the viscosity of the formulation with the phenylalanine is reduced compared to the viscosity of the same formulation without phenylalanine.

10. The method of claim 9 wherein the phenylalanine is added to a concentration of about 0.8% w/v.

11. The method of claim 9 or 10, wherein the viscosity of the formulation with phenylalanine is reduced by at least about 5%, at least about 10%, at least about 15%, at least about 20%, at least about 25%, at least about 30%, at least about 40%, or at least about 50% compared to the viscosity of the formulation in the absence of phenylalanine.

12. The method of claim 9, 10, or 11, wherein the viscosity of the formulation with phenylalanine is less than about 50 cP, less than about 45 cP, less than about 40 cP, less than about 35 cP, less than about 30 cP, or less than about 25 cP.

13. A method for reducing the viscosity of a formulation containing citrate and a therapeutic protein, the method comprising; (a) providing a formulation comprising citrate; and (b) adding tyrosine to the formulation to a concentration of about 0.001% w/v to about 0.005% w/v, wherein the viscosity of the formulation with the tyrosine is reduced compared to the viscosity of the same formulation without tyrosine.

14. The method of claim 13 wherein the tyrosine is added to a concentration of about 0.004% w/v.

15. The method of claim 13 or 14, wherein the viscosity of the formulation with tyrosine is reduced by at least about 5%, at least about 10%, at least about 15%, at least about 20%, at least about 25%, at least about 30%, at least about 40%, or at least about 50% compared to the viscosity of the formulation in the absence of tyrosine.

16. The method of claim 13, 14, or 15, wherein the viscosity of the formulation with tyrosine is less than about 50 cP, less than about 45 cP, less than about 40 cP, less than about 35 cP, less than about 30 cP, or less than about 25 cP.

17. A method for reducing the viscosity of a formulation containing citrate and a therapeutic protein, the method comprising; (a) providing a formulation comprising citrate; and (b) adding

proline to the formulation to a concentration of about 4.0% w/v, wherein the viscosity of the formulation with the proline is reduced compared to the viscosity of the same formulation without proline.

18. The method of claim 17, wherein the viscosity of the formulation with proline is reduced by at least about 5%, at least about 10%, at least about 15%, at least about 20%, at least about 25%, at least about 30%, at least about 40%, at least about 50%, at least about 60%, at least about 70%, or at least about 75% compared to the viscosity of the formulation in the absence of proline.

19. The method of claim 17 or 18, wherein the viscosity of the formulation with tyrosine is less than about 50 cP, less than about 45 cP, less than about 40 cP, less than about 35 cP, less than about 30 cP, less than about 25 cP, less than about 20 cP, or less than about 15 cP.

20. The method of any preceding claim, wherein the method further comprises determining the stability of the protein formulation.

21. The method of any preceding claim, wherein the formulation further comprises sucrose.

22. The method of claim 21, wherein the formulation further comprises sucrose at a concentration of about 234 mM.

23. The method of any preceding claim, wherein the formulation is formulated to a pH of about 6.0.

24. The method of any preceding claim, wherein the formulation further comprises polysorbate-80.

25. The method of any preceding claim wherein the therapeutic protein is an antigen binding polypeptide.

26. The method of any preceding claim wherein the antigen binding polypeptide is an antibody.

27. The method of any preceding claim wherein the antigen binding polypeptide is an immunoglobulin single variable domain.

28. The method of claim 25 where the antigen binding polypeptide binds to interleukin 5 (IL5).

29. The method of claim 28, wherein the antigen binding polypeptide is an anti-IL5 antibody.

30. The method of claim 29, wherein the anti-IL5 antibody comprises a heavy chain comprising SEQ ID NO:1 and a light chain comprising SEQ ID NO:2.

31. The method of any preceding claim wherein the therapeutic protein is present at a concentration of at least about 150 mg/ml, at least about 175 mg/ml, at least about 200 mg/ml, at least about 225 mg/ml, at least about 250 mg/ml, at least about 275 mg/ml, or at least about 300 mg/ml.

32. The method of any preceding claim wherein the therapeutic protein is present at a concentration of at least about 150 mg/ml to about 300 mg/ml.

33. The method of any preceding claim wherein the formulation is a reconstituted formulation.

34. The method of any preceding claim wherein the formulation is a liquid pharmaceutical formulation.

35. The method of any preceding claim wherein the formulation is suitable for parenteral administration.

36. The method of any preceding claim wherein the formulation comprises about 10 mM to about 50 mM citrate.

37. The method of claim 36 wherein the formulation comprises about 20 mM citrate.

38. A stable formulation produced by the method of any preceding claim.

39. An article of manufacture comprising a container containing the formulation of claim 38.

40. The article of manufacture of claim 39 further comprising directions for administration of the formulation.

CLAIMS

1. A method for reducing the viscosity of a formulation containing citrate and a therapeutic protein, the method comprising; (a) providing a formulation comprising citrate; and (b) adding sodium chloride to the formulation to a concentration of 20 mM to 150 mM, wherein the viscosity of the formulation with the sodium chloride is reduced compared to the viscosity of the same formulation without sodium chloride and wherein the formulation further comprises sucrose at a concentration of 234nM.

2. The method of claim 1 wherein the sodium chloride is added to a concentration selected from the group consisting of 25 mM, 50 mM, and 100mM.

3. The method of any preceding claim, wherein the viscosity of the formulation with sodium chloride is reduced by at least 5%, at least 10%, at least 15%, at least 20%, at least 25%, at least 30%, or at least 40% compared to the viscosity of the formulation in the absence of sodium chloride.

4. The method of any preceding claim, wherein the viscosity of the formulation with sodium chloride is less than 50 cP, less than 45 cP, less than 40 cP, or less than 35 cP.

5. The method of any preceding claim, wherein the method further comprises determining the stability of the protein formulation.

6. The method of any preceding claim, wherein the formulation is formulated to a pH of 6.0.

7. The method of any preceding claim, wherein the formulation further comprises polysorbate-80.

8. The method of any preceding claim wherein the therapeutic protein is an antigen binding polypeptide.

9. The method of any preceding claim wherein the antigen binding polypeptide is an antibody.

10. The method of any preceding claim wherein the antigen binding polypeptide is an immunoglobulin single variable domain.

11. The method of claim 8 where the antigen binding polypeptide binds to interleukin 5 (IL5).

12. The method of claim 8, wherein the antigen binding polypeptide is an anti-IL5 antibody.

13. The method of claim 12, wherein the anti-IL5 antibody comprises a heavy chain comprising SEQ ID NO:1 and a light chain comprising SEQ ID NO:2.

14. The method of any preceding claim wherein the therapeutic protein is present at a concentration of at least 150 mg/ml, at least 175 mg/ml, at least 200 mg/ml, at least 225 mg/ml, at least 250 mg/ml, at least 275 mg/ml, or at least 300 mg/ml.

15. The method of any preceding claim wherein the therapeutic protein is present at a concentration of at least 150 mg/ml to 300 mg/ml.

16. The method of any preceding claim wherein the formulation is a reconstituted formulation.

17. The method of any preceding claim wherein the formulation is a liquid pharmaceutical formulation.

18. The method of any preceding claim wherein the formulation is suitable for parenteral administration.

19. The method of any preceding claim wherein the formulation comprises 10 mM to 50 mM citrate.

20. The method of claim 19 wherein the formulation comprises 20 mM citrate.

21. A stable formulation produced by the method of any preceding claim.

22. An article of manufacture comprising a container containing the formulation of claim 21.

23. The article of manufacture of claim 22 further comprising directions for administration of the formulation.