Claims

What is claimed is:

1. A composition comprising from 25 to 400 $g.L^{-1}$ albumin, a solvent, from 200 mM to 1000 mM cations, having a pH from about 5.0 to about 8.0 and wherein the composition comprises less than or equal to 5 mM octanoate, and wherein the albumin is human serum albumin (HSA) having the amino acid sequence of SEQ ID NO: 2 or a variant thereof having at least 80% sequence identity to SEQ ID NO: 2.

2. The composition according to claim 1 which comprises less than or equal to 1 mM octanoate.

3. The composition according to claim 2 wherein the cations are present at from 200 to 350 mM.

4. The composition according to any of claims 1 to 3 wherein the pH is from about 6.0 to about 7.0.

5. The composition according to any of claims 1 to 4 wherein the pH is about pH 6.5.

6. The composition according to any of claims 1 to 5 wherein the cations are selected from: sodium, potassium, calcium, magnesium, and ammonium.

7. The composition according to any of claims 1 to 6 wherein the cations are sodium ions.

8. The composition according to any of claims 1 to 7 which comprises:

   (a) less than 5 mM amino acids (such as N-acetyl tryptophan), preferably less than 1 mM amino acids; and/or

   (b) less than 20 $mg.L^{-1}$ detergent (such as polysorbate 80), preferably less than 5 $mg.L^{-1}$ detergent.

9. The composition according to claim 7 which is substantially free of amino acids (such as N-acetyl tryptophan) and/or substantially free of detergent (such as polysorbate 80).

10. A composition according to any of claims 1 to 9 wherein the albumin is HSA having the amino acid sequence of SEQ ID NO: 2.

11. The composition according to any of claims 1 to 10 wherein the albumin is at a concentration of from 50 g.L-1 to 400 g.L-1.

12. The composition according to any of claims 1 to 11 wherein the albumin is a recombinant albumin.

13. The composition according to claim 1 comprising:

(a) 50 to 250 $g.L^{-1}$ albumin;

(b) 225 to 275 mM Na^{+};

(c) 20 to 30 mM phosphate;

and having a pH of about 6.5, and wherein the composition comprises less than 2 mM octanoate.

14. The composition according to any of claims 1 to 13 which is substantially free of octanoate.

15. The composition according to any of claims 1 to 14 which is more stable than a control solution of albumin wherein the control solution is the same concentration in 150 mM Na or water.

16. A method for preparing a cell culture medium comprising supplementing a basal medium with the composition according to any preceding claim.

17. The method according to claim 16 wherein the cell culture medium is a stem cell culture medium.

18. The method according to claim 16 or 17 wherein the cell culture medium is substantially free of animal-derived components.

19. Use of a composition according to any of claims 1 to 15 to culture cells.

20. A method according to any of claims 16 to 18, further comprising incubating cells in the cell culture medium.

21. The use or method according to claim 19 or 20 in which the cells comprise stem cells.