**WHAT IS CLAIMED IS:**

1. A method of producing an antibody of interest ("AOI"), comprising:
culturing NS0 cells engineered to secrete and express the AOI in a cell culture medium comprising glycine at a concentration between 5 mM and 30 mM under conditions suitable for expression and secretion of the AOI, thereby producing the AOI.

2. The method of claim 1, wherein the concentration of glycine is in the range of from 10 mM to 25 mM.

3. The method of claim 1, wherein the concentration of glycine is in the range of from 15 mM to 20 mM.

4. The method of claim 1, wherein the concentration of glycine is in the range of from 16 mM to 18 mM.

5. The method of any one of claims 1-4, wherein the medium is a protein-free medium.

6 The method of any one of claim 1-5, further comprising recovering the AOI.

7. The method of claim 6, wherein recovering the AOI comprises the step of separating the NS0 cells from the culture medium.

8. The method of claim 7, further comprising purifying the AOI.

9. The method of any one of claims 1-8, wherein the NS0 cells are seeded to a density of 1.5 X $10^5$ cells/mL to 2.5 X $10^5$ cells/mL, prior to said culturing.

10. The method of any one of claims 1-9, wherein the AOI is an IgG1 monoclonal antibody comprising a VH region of the amino acid sequence of SEQ ID NO:1 and a VL region of the amino acid sequence of SEQ ID NO:2.

11. The method of claim 10, wherein the AOI has a full heavy chain amino acid sequence of SEQ ID NO:3 and a full light chain amino acid sequence of SEQ ID NO:4.

12. The method of any one of claims 1-9, wherein the AOI is an IgG1 monoclonal antibody comprising a VH region of the amino acid sequence of SEQ ID NO:5 and a VL region of the amino acid sequence of SEQ ID NO:6.

13. The method of claim 12, wherein the AOI has a full heavy chain amino acid sequence of SEQ ID NO:7 and a full light chain amino acid sequence of SEQ ID NO:8.

14. The method of any one of claims 1-9, wherein the AOI is an IgG1 monoclonal antibody comprising a VH region of the amino acid sequence of SEQ ID NO:9 and a VL region of the amino acid sequence of SEQ ID NO:10.

15. The method of claim 14, wherein the AOI has a full heavy chain amino acid sequence of SEQ ID NO:11 and a full light chain amino acid sequence of SEQ ID NO:12.

16. The method of any one of claims 1-9, wherein the AOI is an IgG1 monoclonal antibody comprising a VH region of the amino acid sequence of SEQ ID NO:13 and a VL region of the amino acid sequence of SEQ ID NO:14.

17. The method of claim 16, wherein the AOI has a full heavy chain amino acid sequence of SEQ ID NO:15 and a full light chain amino acid sequence of SEQ ID NO:16.

18. The method of any one of claims 1-9, wherein the AOI is an IgG1 monoclonal antibody comprising a VH region of the amino acid sequence of SEQ ID NO:17 and a VL region of the amino acid sequence of SEQ ID NO:18.

19. The method of claim 18, wherein the AOI has a full heavy chain amino acid sequence of SEQ ID NO:19 and a full light chain amino acid sequence of SEQ ID NO:20.

20. A culture medium suitable for mammalian cell culture, comprising amino acids, vitamins, and trace elements, in which glycine is at a concentration between 5 mM and 30 mM, and in which one or more amino acids other than glycine have concentrations at or below the concentrations listed in the following table:

| Amino Acid | Concentration of Amino Acid in Medium |
|---|---|
| Asparagine | 2 mM |
| Aspartic Acid | 2 mM |
| Isoleucine | 2 mM |
| Leucine | 2.5 mM |
| Lysine | 6 mM |
| Methionine | 0.45 mM |
| Serine | 4 mM |
| Threonine | 4 mM |
| Tryptophan | 0.3 mM |
| Tyrosine | 2.5 mM |
| Valine | 1.8 mM |

21. A culture medium suitable for mammalian cell culture, comprising amino acids, vitamins, and trace elements, in which glycine is at a concentration between 5.0 mM and 30 mM, and in which one or more amino acids other than glycine have concentrations at or below the concentrations listed in the following table:

| Amino Acid | Concentration of Amino Acid in Medium |
|---|---|
| Asparagine | 1.5 mM |
| Aspartic Acid | 1.5 mM |
| Isoleucine | 1.5 mM |
| Leucine | 2 mM |
| Lysine | 4 mM |
| Methionine | 0.4 mM |
| Serine | 2 mM |
| Threonine | 2 mM |
| Tryptophan | 0.2 mM |
| Tyrosine | 1.5 mM |
| Valine | 1.5 mM |

22. The culture medium of claim 20 or claim 21, in which two or more amino acids other than glycine are present at concentrations selected from the concentrations listed in claim 20 or claim 21, respectively.

23. The culture medium of claim 20 or claim 21, in which three or more amino acids other than glycine are present at concentrations selected from the concentrations listed in claim 20 or claim 21, respectively.

24. The culture medium of claim 20 or claim 21, in which four or more amino acids other than glycine are present at concentrations selected from the concentrations listed in claim 20 or claim 21, respectively.

25. The culture medium of claim 20 or claim 21, in which five or more amino acids other than glycine are present at concentrations selected from the concentrations listed claim 20 or claim 21, respectively.

26. The culture medium of claim 20 or claim 21, in which six or more amino acids other than glycine are present at concentrations selected from the concentrations listed in claim 20 or claim 21, respectively.

27. The culture medium of any one of claims 20-26, in which the concentration of glycine is in the range of from 10 mM to 25 mM.

28. The culture medium of any one of claims 20-26, in which the concentration of glycine is in the range of from 15 mM to 20 mM.

29. The culture medium of any one of claims 20-26, in which the concentration of glycine is in the range of from 16 mM to 18 mM.

30. The culture medium of any one of claims 20-29, which is protein-free.

31. The culture medium of any one of claims 20-30, which has an osmolality between 250 mOsm/kg and 350 mOsm/kg.

32. A culture medium suitable for mammalian cell culture, comprising amino acids, vitamins, and trace elements, in which the amino acid have concentrations in the ranges listed in the following table:

| Amino Acid | Concentration of Amino Acid in the Medium (mM) |
|---|---|
| Alanine | 0.01-0.07 |
| Arginine | 0.6-1.6 |
| Asparagine | 0.08-1.5 |
| Aspartic Acid | 0.03-0.4 |
| Cysteine | 0.1-0.9 |
| Glutamic Acid | 0.03-0.1 |
| Glutamine | 2-12 |
| Glycine | 8-35 |
| Histidine | 0.09-0.7 |
| Isoleucine | 0.9-1.7 |
| Leucine | 1-1.8 |
| Lysine | 0.8-1.6 |
| Methionine | 0.1-0.5 |
| Phenylalanine | 0.2-1 |
| Proline | 0.5-4 |
| Serine | 0.1-0.8 |
| Threonine | 0.7-1.5 |
| Tryptophan | 0.08-0.3 |
| Tyrosine | 0.2-3 |
| Valine | 0.8-1.6 |

33. The culture medium of any one of claims 20-32, in which the vitamins have concentrations in the ranges listed in the following table:

| Vitamin | Concentration of Vitamin in the Medium (mM) |
|---|---|
| Vitamin B-12 | 0.00013-0.002 |
| Biotin | 0.00001- 0.01 |
| Choline | 0.016-1.3 |
| Folic Acid | 0.0015-0.02 |
| Niacinamide | 0.002-0.07 |
| Calcium pantothenate | 0.012-0.02 |
| Pyridoxal hydrochloride | 0-0.04 |
| Riboflavin | 0.00015-0.0023 |
| Thiamine hydrochloride | 0-0.3 |

34. The culture medium of any one of claims 20-33, in which the trace elements have concentrations in the ranges listed in the following table:

| Trace Element | Concentration of Trace Element in the Medium (mM) |
|---|---|
| Calcium chloride anhydrous | 0.2-1.1 |
| Magnesium chloride anhydrous | 0.1-1. |
| Magnesium sulfate anhydrous | 0.1-1.1 |
| Potassium Chloride | 2-8 |
| Sodium phosphate dibasic anhydrous | 0.5-5 |

35. The culture medium of any one of claims 20-34, further comprising at least one energy source.

36. The culture medium of claim any one of claims 32-35, wherein the concentration of glycine is between 15 mM and 30 mM

37. A culture medium suitable for mammalian cell culture, comprising amino acids, vitamins, and trace elements, in which glycine is at a concentration between 5 mM and 30 mM and lysine is at a concentration between 0.5 mM and 5.0 mM.

38. A culture medium suitable for mammalian cell culture, comprising amino acids, vitamins, and trace elements, in which glycine is at a concentration between 10 mM and 30 mM.

39. The culture medium of claim 37 or claim 38, in which the concentration of glycine is in the range of from 10 mM to 25 mM.

40. The culture medium of claim 37 or claim 38, in which the concentration of glycine is in the range of from 15 mM to 20 mM.

41. The culture medium of claim 37 or claim 38, in which the concentration of glycine is in the range of from 16 mM to 18 mM.

42. The culture medium of any one of claims 37-41, which is protein-free.

43. The culture medium of any one of claims 37-42, which has an osmolality between 250 mOsm/kg and 350 mOsm/kg.

44. A mammalian cell culture comprising a mammalian cell line engineered to express an antibody, and a culture medium as defined in any one of claims 20-43.

45. The mammalian cell culture of claim 44, in which the cell line is selected from CHO cells, NSO myeloma cells, COS cells, SP2/0 cells, EB66® cells, and PER.C6® cells.

46. The mammalian cell culture of claim 45, in which the cell line is an NS0 cell line.

47. The mammalian cell culture of any one of claims 44-46, in which the density of the NS0 cells in the media is in the range of 1.5 X $10^5$ cells/mL and 2.5 X $10^5$ cells/mL.

48. The mammalian cell culture of any one of claims 44-47, wherein the antibody comprises a full heavy chain amino acid sequence of SEQ ID NO:3 and a full light chain amino acid sequence of SEQ ID NO:4.

49. The mammalian cell culture of any one of claims 44-47, wherein the antibody comprises a full heavy chain amino acid sequence of SEQ ID NO:7 and a full light chain amino acid sequence of SEQ ID NO:8.

50. The mammalian cell culture of any one of claims 44-47, wherein the antibody comprises a full heavy chain amino acid sequence of SEQ ID NO:15 and a full light chain amino acid sequence of SEQ ID NO:16.

51. The mammalian cell culture of any one of claims 44-47, a full heavy chain amino acid sequence of SEQ ID NO:19 and a full light chain amino acid sequence of SEQ ID NO:20.

52. A composition comprising a population of antibody molecules, said antibody molecules comprising a full heavy chain amino acid sequence of SEQ ID NO:3 and a full light chain amino acid sequence of SEQ ID NO:4, wherein at least 5% of the glycans on said antibody molecules lack fucose.

53. The composition of claim 52, wherein at least 3% of the glycans on said antibody molecules are Mannose5 glycans.

54. A composition comprising a population of antibody molecules, said antibody molecules comprising a full heavy chain amino acid sequence of SEQ ID NO:7 and a full light chain amino acid sequence of SEQ ID NO:8, wherein at least 4% of the glycans on said antibody molecules lack fucose.

55. The composition of claim 54, wherein at least 1.5% of the glycans on said antibody molecules are Mannose5 glycans.

56. A composition comprising a population of antibody molecules, said antibody molecules comprising a full heavy chain amino acid sequence of SEQ ID NO:15 and a full light chain amino acid sequence of SEQ ID NO:16, wherein at least 15% of the glycans on said antibody molecules lack fucose.

57. The composition of claim 56, wherein at least 9% of the glycans on said antibody molecules are Mannose5 glycans.

58. A composition comprising a population of antibody molecules, said antibody molecules comprising a full heavy chain amino acid sequence of SEQ ID NO:19 and a full light chain amino acid sequence of SEQ ID NO:20, wherein at least 6% of the glycans on said antibody molecules lack fucose.

59. The composition of claim 59, wherein at least 3% of the glycans on said antibody molecules are Mannose5 glycans.

## CLAIMS

1. An invention not claimed in any divisional application.