What is claimed is:

1. A method for producing a recombinant protein comprising:

culturing a recombinant bacterial cell to express a recombinant protein comprising continuously adding a carbon source to a culture comprising the recombinant bacterial cell and continuously adding an inducer to the culture after the culture achieves a threshold parameter, and isolating the recombinant protein from the culture.

2. The method of claim 1, wherein the threshold parameter is optical density (OD), dissolved oxygen (DO), concentration of nutrient in culture medium, total concentration of carbon source added to culture medium, or any combination thereof.

3. The method of claim 2, wherein the threshold parameter is optical density (OD) of the culture.

4. The method of claim 3, comprising continuously adding the inducer to the culture when the cell density of the culture achieves an OD_{600} of about 70 to about 110.

5. The method of claim 4, comprising continuously adding the inducer to the culture when the cell density of the culture achieves an OD_{600} of about 70 to about 105.

6. The method of claim 5, comprising continuously adding the inducer to the culture when the cell density of the culture achieves an OD_{600} of about 75 to about 85.

7. The method of claim 6, comprising continuously adding the inducer to the culture when cell density of the culture achieves an OD_{600} of about 80.

8. The method of claim 1, comprising adding the inducer to the culture at a constant rate, adding the inducer to the culture by DO-stat feed or adding the inducer to the culture by pH-stat feed.

9. The method of claim 1, comprising adding the inducer to the culture at a constant rate of about 3.35 g/L/h to about 16 g/L/h, adding the inducer to the culture by DO-stat feed or by pH-stat feed.

10. The method of claim 1, wherein the total amount of the inducer added to the culture is about 4 g/L to about 40 g/L.

11. The method of claim 10, wherein the total amount of the inducer added to the culture during inducer feed is from about 5 g/L to about 20 g/L.

12. The method of claim 11, wherein the total amount of the inducer added to the culture during inducer feed is from about 7 g/L to about 15 g/L.

13. The method of claim 12, wherein the total amount of the inducer added to the culture during inducer feed is about 10 g/L.

14. The method of claim 1, comprising continuously adding the inducer to the culture for about 2 to about 8 hours after initiation of the method.

15. The method of claim 14, comprising continuously adding the inducer to the culture for about 3 to about 6 hours after initiation.

16. The method of claim 1, comprising isolating the recombinant protein about 2 to about 8 hours after starting to add the inducer to the culture.

17. The method of claim 16, comprising isolating the recombinant protein about 3 to about 6 hours after starting to add the inducer to the culture.

18. The method of claim 1, wherein the inducer is arabinose.

19. The method of claim 1, comprising continuously adding the carbon source to the culture before induction.

20. The method of claim 1, comprising continuously adding the carbon source to the culture before and during induction.

21. The method of claim 1, comprising continuously adding the carbon source to the culture while the inducer is continuously added to the culture.

22. The method of claim 1, comprising continuously adding the carbon source to the culture until the cell density of the culture achieves an OD_{600} of about 70 to about 110.

23. The method of claim 1, wherein the carbon source is a sugar-based carbon source.

24. The method of claim 23, wherein the sugar-based carbon source is glucose.

25. The method of claim 24, wherein the inducer is arabinose.

26. The method of claim 25, comprising continuously adding the glucose to the culture medium while the arabinose is continuously added to the culture medium.

27. The method of claim 25, comprising continuously adding the glucose until the cell density of the culture achieves an OD_{600} of about 80.

28. A method for producing a recombinant protein comprising:

a) introducing into a bacterial host cell an expression vector encoding a recombinant protein under the control of an inducible promoter to form a recombinant bacterial cell;
b) introducing the recombinant bacterial cell into a culture medium to form a cell culture;
c) adding a carbon source to the cell culture as a continuous feed;
d) monitoring cell growth in the cell culture for achievement of a threshold optical density (OD_{600});
e) adding an inducer of the inducible promoter to the cell culture as a continuous feed once the threshold optical density (OD_{600}) is achieved; and
f) isolating the recombinant protein from the cell culture.

29. The method of claim 28, comprising continuously adding the inducer to the culture when the cell density of the culture achieves an OD_{600} of about 70 to about 110.

30. The method of claim 29, comprising continuously adding the inducer to the culture when the cell density of the culture achieves an OD_{600} of about 70 to about 105.

31. The method of claim 30, comprising continuously adding the inducer to the culture when the cell density of the culture achieves an OD_{600} of about 75 to about 85.

32. The method of claim 31, comprising continuously adding the inducer to the culture when the cell density of the culture achieves an OD_{600} of about 80.

33. The method of claim 28, wherein the inducer is added to the culture at a constant rate, the inducer is added to the culture by DO-stat feed or the inducer is added to the culture by pH-stat feed.

34. The method of claim 33, wherein the inducer is added to the culture at a constant rate of from about 3.35 g/L/h to about 16 g/L/h, the inducer is added to the culture by DO-stat feed or the inducer is added to the culture by pH-stat feed.

35. The method of claim 28, wherein the total amount of inducer added to the culture is from about 4 g/L to about 40 g/L.

36. The method of claim 35, wherein the total amount of inducer added to the culture is from about 5 g/L to about 20 g/L.

37. The method of claim 36, wherein the total amount of inducer added to the culture is from about 7 g/L to about 15 g/L.

38. The method of claim 37, wherein the total amount of inducer added to the culture is about 10 g/L.

39. The method of claim 28, comprising isolating the recombinant protein from the culture about 2 hours to about 8 hours after initiation of inducer feed.

40. The method of claim 39, comprising isolating the recombinant protein from the culture about 3 hours to about 6 hours after initiation of inducer feed.

41. The method of claim 28, wherein the carbon source is added to the cell culture during constant rate feed of both the carbon source and the inducer, during DO-stat feed of both the carbon source and the inducer or during pH-stat feed of both the carbon source and the inducer.

42. The method of claim 28, wherein the inducer is arabinose.

43. The method of claim 28, wherein the carbon source is a sugar-based carbon source.

44. The method of claim 43, wherein the sugar-based carbon source is glucose.

45. The method of claim 28, wherein the carbon source is glucose and the inducer is arabinose.

46. The method of claim 45, comprising continuously adding glucose to the cell culture while the arabinose is continuously added to the cell culture.

47. The method of claim 45, comprising continuously adding glucose to the cell culture until the cell density of the cell culture achieves an OD_{600} of about 80.

48. A method for producing a recombinant protein comprising:

culturing a recombinant bacterial cell to express a recombinant protein by continuously adding an inducer to a culture comprising the bacterial cell after the culture achieves a threshold parameter, wherein the bacterial cell comprises a nucleic acid sequence corresponding to a gene of *N. meningitidis* serogroup B.

49. The method of claim 48, wherein the threshold parameter is optical density (OD), dissolved oxygen (DO), pH, concentration of nutrient in culture medium, total concentration of carbon source added to culture medium, or any combination thereof.

50. The method of claim 49, wherein the threshold parameter is optical density (OD) of the culture.

51. The method of claim 50, wherein the continuous inducer feed is initiated when the cell density of the culture achieves an OD_{600} of about 70 to about 110.

52. The method of claim 51, wherein the continuous inducer feed is initiated when the cell density of the culture achieves an OD_{600} of about 70 to about 105.

53. The method of claim 52, wherein the continuous inducer feed is initiated when the cell density of the culture achieves an OD_{600} of about 75 to about 85.

54. The method of claim 53, wherein the continuous inducer feed is initiated when the cell density of the culture achieves an OD_{600} of about 80.

55. The method of claim 48, wherein the inducer is added to the culture at a constant rate of about 3.35 g/L/h to about 16 g/L/h, the inducer is added by DO-stat feed or the inducer is added by pH-stat feed.

56. The method of claim 48, wherein the total amount of inducer added to the culture during induction is from about 4 g/L to about 40 g/L.

57. The method of claim 56, wherein the total amount of inducer added to the culture during induction is from about 5 g/L to about 20 g/L.

58. The method of claim 57, wherein the total amount of inducer added to the culture medium during induction is about 7 g/L to about 15 g/L.

59. The method of claim 58, wherein the total amount of inducer added to the culture during induction is about 10 g/L.

60. The method of claim 48, wherein the inducer feed continues for about 2 hours to about 8 hours after initiation of the method.

61. The method of claim 60, wherein the inducer feed continues for about 3 hours to about 6 hours after initiation of the method.

62. The method of claim 48, wherein the recombinant protein is harvested from about 2 hours to about 8 hours after initiation of inducer feed.

63. The method of claim 62, wherein the recombinant protein product is isolated from about 3 hours to about 6 hours after initiation of inducer feed.

64. The method of claim 48, wherein the carbon source feed to the culture medium continues during inducer feed to the culture.

65. The method of claim 48, wherein the inducer is arabinose.

66. The method of claim 48, wherein the carbon source is a sugar-based carbon source.

67. The method of claim 66, wherein the sugar-based carbon source is glucose.

68. The method of claim 67, wherein the inducer is arabinose.

69. The method of claim 68, wherein glucose is fed to the culture at a constant feed rate during the constant rate feed of arabinose to the culture, during DO-stat of both the glucose and the inducer or by pH-stat feed of both the glucose and the inducer.

70. The method of claim 68, wherein glucose is fed to the culture at a constant feed rate during the constant rate feed of arabinose to the culture, by DO-stat feed of both the glucose and the inducer until the cell density in the culture achieves an OD_{600} of about 80 or by pH-stat feed of both the glucose and the inducer until the cell density in the culture achieves an OD_{600} of about 80.

71. The method of claim 68, wherein the recombinant meningococcal 2086 protein comprises a lipoprotein (rLP2086).

72. The method of claim 68, wherein the protein comprises a non-lipidated protein.

73. The method of claim 68, wherein the protein comprises meningococcal 2086 subfamily A protein.

74. The method of claim 68, wherein the protein comprises meningococcal 2086 subfamily B protein.

75. A method for producing a recombinant meningococcal 2086 protein (P2086) comprising:

(a) introducing into a bacterial host cell an expression vector encoding a recombinant 2086 protein under the control of an inducible promoter to form a recombinant bacterial cell;

(b) introducing the recombinant bacterial cell to a culture medium to form a culture;

(c) adding a carbon source to the culture;

(d) monitoring cell growth in the culture for achievement of a threshold optical density (OD);

(e) continuously adding an inducer of the inducible promoter to the culture once the cell density of the culture achieves an optical density of about 70 to 110; and

(f) isolating the recombinant meningococcal 2086 protein from the culture after about 3 hours to about 6 hours after commencement of continuously adding the inducer.

76. A composition comprising:

a bacterial culture comprising a recombinant meningococcal 2086 protein at a density of at least about 1.5 g/L based on the total volume of the bacterial culture.

77. The composition of claim 76, wherein the recombinant meningococcal 2086 protein is lipidated protein.

78. The composition of claim 76, wherein the recombinant meningococcal 2086 protein is non-lipidated protein.

79. The composition of claim 76, wherein the recombinant meningococcal 2086 protein is a 2086 subfamily A protein.

80. The composition of claim 76, wherein the recombinant protein is a 2086 subfamily B protein.

81. The composition of claim 80, wherein the culture comprises a second recombinant meningococcal 2086 protein.

82. The composition of claim 81, wherein the second 2086 recombinant meningococcal protein is a 2086 subfamily A protein.

83. The composition of claim 76, wherein the density of the recombinant meningococcal 2086 protein is at least about 1.7 g/L based on the total volume of the bacterial culture.

84. The composition of claim 76, wherein the density of the recombinant meningococcal 2086 protein is at least about 2.0 g/L based on the total volume of the bacterial culture.

85. The composition of claim 76, wherein the density of the recombinant meningococcal 2086 protein is at least about 3.0 g/L based on the total volume of the bacterial culture.

86. A composition comprising:

a bacterial culture comprising a recombinant meningococcal 2086 protein prepared according to the process of any of claims 1-75.

CLAIMS

1. A method for producing a recombinant meningococcal protein comprising:

   culturing a recombinant bacterial cell to express the recombinant meningococcal protein comprising continuously adding a carbon source to a culture comprising the recombinant bacterial cell and continuously adding an inducer to the culture after the culture achieves a threshold parameter, said inducer being added to the culture simultaneously to the continuous addition of the carbon source; and isolating the recombinant meningococcal protein from the culture; wherein the protein is produced at a peak density after the inducer is added to the culture for about 3 hours; wherein the inducer is arabinose; wherein the carbon source feed rate during the arabinose induction is between 2.25 and 7.5 g/L/h; wherein the arabinose feed rate is between 1.7 and 6.7 g/L/h.

2. A method for producing a recombinant meningococcal protein comprising:
   culturing a recombinant bacterial cell to express the recombinant meningococcal protein by continuously adding an inducer to a culture comprising the bacterial cell after the culture achieves a threshold parameter, said inducer being added to the culture simultaneously to the continuous feed of a carbon source wherein the bacterial cell comprises a nucleic acid sequence corresponding to a gene of *N. meningitidis* serogroup B; wherein the inducer is arabinose; wherein the carbon source feed rate during the arabinose induction is between 2.25 and 7.5 g/L/h; and wherein the arabinose feed rate is between 1.7 and 6.7 g/L/h.

3. The method of claim 1 or 2, wherein the threshold parameter is optical density (OD), dissolved oxygen (DO), pH, concentration of nutrient in culture medium, total concentration of carbon source added to culture medium, or any combination thereof.

4. The method of claim 3, wherein the threshold parameter is optical density (OD) of the culture.

5. A method for producing a recombinant meningococcal protein comprising:

   a) introducing into a bacterial host cell an expression vector encoding a recombinant meningococcal protein under the control of an inducible promoter to form a recombinant bacterial cell;
   b) introducing the recombinant bacterial cell into a culture medium to form a cell culture;
   c) adding a carbon source to the cell culture as a continuous feed;
   d) monitoring cell growth in the cell culture for achievement of a threshold optical density (OD_{600});
   e) adding an inducer of the inducible promoter to the cell culture as a continuous feed once the threshold optical density (OD_{600}) is achieved; said inducer being added to the culture simultaneously to the continuous feed of the carbon source;
   f) isolating the recombinant protein from the cell culture;
   g) and isolating the recombinant protein from the culture; wherein the protein is produced at a peak density after the inducer is added to the culture for about 3 hours; wherein the inducer is arabinose; wherein the carbon source feed rate during the arabinose induction is between 2.25 and 7.5 g/L/h; and wherein the arabinose feed rate is between 1.7 and 6.7 g/L/h.

6. The method of any one of the preceding claims, comprising continuously adding the inducer to the culture when the cell density of the culture achieves an OD_{600} of about 70 to about 110.

7. The method of claim 6, comprising continuously adding the inducer to the culture when the cell density of the culture achieves an OD_{600} of about 70 to about 105.

8. The method of claim 7, comprising continuously adding the inducer to the culture when the cell density of the culture achieves an OD_{600} of about 75 to about 85.

9. The method of claim 8, comprising continuously adding the inducer to the culture when the cell density of the culture achieves an OD_{600} of about 80.

10. The method of any one of claims 1, 2 and 5, wherein the inducer is added to the culture at a constant rate, the inducer is added to the culture by DO-stat feed or the inducer is added to the culture by pH-stat feed.

11. The method of claim 10, wherein the inducer is added to the culture at a constant rate of from about 3.35 g/L/h to about 16 g/L/h, the inducer is added to the culture by DO-stat feed or the inducer is added to the culture by pH-stat feed.

12. The method of any one of claims 1, 2 and 5, wherein the total amount of inducer added to the culture is from about 4 g/L to about 40 g/L.

13. The method of claim 12, wherein the total amount of inducer added to the culture is from about 5 g/L to about 20 g/L.

14. The method of claim 13, wherein the total amount of inducer added to the culture is from about 7 g/L to about 15 g/L.

15. The method of claim 14, wherein the total amount of inducer added to the culture is about 10 g/L.

16. The method of claim 13, wherein the total amount of the inducer added to the culture is from about 5 g/L to about 7 g/L based on the total volume of the culture.

17. The method of claim 13, wherein the total amount of the inducer added to the culture is about 5.4 g/L based on the total volume of the culture.

18. The method of any one of claims 1, 2 and 5, wherein the inducer is added to the culture at a constant rate of about 1.5 g/L/h to 16 g/L/h.

19. The method of claim 18, wherein the inducer is added to the culture at a constant rate of about 1.7 g/L/h.

20. The method of claim 18 or claim 19, wherein the inducer is added to the culture at said constant rate of for about 3 hours.

21. The method of claim 1 or claim 2, comprising continuously adding the inducer to the culture for about 2 to about 8 hours after initiation of the method.

22. The method of claim 21, comprising continuously adding the inducer to the culture for about 3 to about 6 hours after initiation of the method.

23. The method of any one of claims 1, 2 and 5, comprising isolating the recombinant protein about 2 to about 8 hours after starting to add the inducer to the culture.

24. The method of claim 23, comprising isolating the recombinant protein about 3 to about 6 hours after starting to add the inducer to the culture.

25. The method of claim 1, comprising continuously adding the carbon source to the culture before induction.

26. The method of claim 1, comprising continuously adding the carbon source to the culture before and during induction.

27. The method of claim 1, comprising continuously adding the carbon source to the culture while the inducer is continuously added to the culture.

28. The method of claim 1, comprising continuously adding the carbon source to the culture until the cell density of the culture achieves an OD_{600} of about 70 to about 110.

29. The method of claim 2, wherein the carbon source feed to the culture medium continues during inducer feed to the culture.

30. The method of claim 5, wherein the carbon source is added to the cell culture during constant rate feed of both the carbon source and the inducer, during DO-stat feed of both the carbon source and the inducer or during pH-stat feed of both the carbon source and the inducer.

31. The method of any one of the preceding claims, wherein the inducer is arabinose.

32. The method of claim 1 or claim 5, wherein the carbon source is a sugar-based carbon source.

33. The method of claim 32, wherein the sugar-based carbon source is glucose.

34. The method of claim 33, wherein the inducer is arabinose.

35. The method of claim 34, comprising continuously adding the glucose to the culture medium while the arabinose is continuously added to the culture medium.

36. The method of claim 34, comprising continuously adding the glucose until the cell density of the culture achieves an OD_{600} of about 80.

37. The method of claim 2, wherein the carbon source is a sugar-based carbon source.

38. The method of claim 37, wherein the sugar-based carbon source is glucose.

39. The method of claim 38, wherein the inducer is arabinose.

40. The method of claim 39, wherein glucose is fed to the culture at a constant feed rate during the constant rate feed of arabinose to the culture, during DO-stat of both the glucose and the inducer or by pH-stat feed of both the glucose and the inducer.

41. The method of claim 39, wherein glucose is fed to the culture at a constant feed rate during the constant rate feed of arabinose to the culture, by DO-stat feed of both the glucose and the inducer until the cell density in the culture achieves an OD_{600} of about 80 or by pH-stat feed of both the glucose and the inducer until the cell density in the culture achieves an OD_{600} of about 80.

42. The method of claim 39, wherein the recombinant meningococcal 2086 protein comprises a lipoprotein (rLP2086).

43. The method of claim 39, wherein the protein comprises a non-lipidated protein.

44. The method of claim 39, wherein the protein comprises meningococcal 2086 subfamily A protein.

45. The method of claim 39, wherein the protein comprises meningococcal 2086 subfamily B protein.

46. A method for producing a recombinant meningococcal 2086 protein (P2086) comprising:

(a) introducing into a bacterial host cell an expression vector encoding a recombinant 2086 protein under the control of an inducible promoter to form a recombinant bacterial cell;

(b) introducing the recombinant bacterial cell to a culture medium to form a culture;

(c) continuously adding a carbon source to the culture;

(d) monitoring cell growth in the culture for achievement of a threshold optical density (OD);

(e) continuously adding an inducer of the inducible promoter to the culture once the cell density of the culture achieves an optical density of about 70 to 110; said inducer being added to the culture simultaneously to the continuous addition of the carbon source; and

(f) isolating the recombinant meningococcal 2086 protein from the culture after about 3 hours to about 6 hours after commencement of continuously adding the inducer; wherein the protein is produced at a peak density after the inducer is added to the culture for about 3 hours; wherein the inducer is arabinose; wherein the carbon source feed rate during the arabinose induction is between 2.25 and 7.5 g/L/h; and wherein the arabinose feed rate is between 1.7 and 6.7 g/L/h.

47. A composition comprising:

a bacterial culture comprising a recombinant meningococcal 2086 protein at a density of at least about 1.5 g/L based on the total volume of the bacterial culture, after culturing the bacterial cell in a medium comprising a carbon source and arabinose for about 3 hours; wherein the inducer is arabinose; wherein the carbon source feed rate

during the arabinose induction is between 2.25 and 7.5 g/L/h; and wherein the arabinose feed rate is between 1.7 and 6.7 g/L/h.

48. The composition of claim 47, wherein the recombinant meningococcal 2086 protein is lipidated protein.

49. The composition of claim 47, wherein the recombinant meningococcal 2086 protein is non-lipidated protein.

50. The composition of claim 47, wherein the recombinant meningococcal 2086 protein is a 2086 subfamily A protein.

51. The composition of claim 47, wherein the recombinant protein is a 2086 subfamily B protein.

52. The composition of claim 51, wherein the culture comprises a second recombinant meningococcal 2086 protein.

53. The composition of claim 52, wherein the second 2086 recombinant meningococcal protein is a 2086 subfamily A protein.

54. The composition of claim 47, wherein the density of the recombinant meningococcal 2086 protein is at least about 1.7 g/L based on the total volume of the bacterial culture.

55. The composition of claim 47, wherein the density of the recombinant meningococcal 2086 protein is at least about 2.0 g/L based on the total volume of the bacterial culture.

56. The composition of claim 47, wherein the density of the recombinant meningococcal 2086 protein is at least about 3.0 g/L based on the total volume of the bacterial culture.

57. A composition comprising:

a bacterial culture comprising a recombinant meningococcal 2086 protein prepared according to the method of any one of claims 1 to 46.

58. The method of any one of claims 1, 2, 5 and 46; or the composition of claim 47 substantially as hereinbefore describe with reference to the Examples and/or Figures.