Another aspect as reported herein is a method for the production of an immunoglobulin comprising

a) cultivating a eukaryotic cell comprising a nucleic acid encoding the immunoglobulin in a cultivation medium wherein the amount of glucose available in the cultivation medium per time unit is kept constant and limited to a constant value of less than 80 % of the amount that could maximally be utilized by the cells in the cultivation medium per time unit, characterized in that the eukaryotic cell is a Chinese Hamster Ovary (CHO) cell, and

b) recovering the immunoglobulin from the culture.

Another aspect as reported herein is a composition comprising an immunoglobulin, characterized in that the composition has been prepared with a method as defined herein, characterized in that the immunoglobulin is an anti-IL-6R antibody and that the anti-IL-6R antibody is attached to a mannose-5 glycostructure of 8% or less.

Patent Claims

1. Method for the production of an immunoglobulin comprising

a) cultivating a eukaryotic cell comprising a nucleic acid encoding the immunoglobulin in a cultivation medium wherein the amount of glucose available in the cultivation medium per time unit is kept constant and limited to a constant value of less than 80 % of the amount that could maximally be utilized by the cells in the cultivation medium per time unit, characterized in that the eukaryotic cell is a Chinese Hamster Ovary (CHO) cell, and

b) recovering the immunoglobulin from the culture.

2. Method according to claim 1, wherein the amount of glucose available per time unit is kept constant in a range between 80 % and 10 %.

3. Method according to any one of claims 1 to 2, wherein the amount of glucose available is kept constant in a range between 50 % and 10 %.

4. Method according to any one of claims 1 to 2, wherein the amount of glucose available is kept constant in a range between 45 % and 20 %.

5. Method according to claim 1, characterized in that the constant value is less than 80 % and more than 20 %.

6. Method according to any one of the preceding claims, characterized in that the cultivating is a fed-batch cultivating.

7. Method according to claim 6, characterized in that the cultivating is a fed-batch cultivating wherein the feeding is started at day 2 or day 3 of the cultivating.

8. Method according to any one of claims 6 to 7, wherein the feeding is started once the amount of glucose present in the culture medium has dropped to or below a preset value in the cultivation.

9. Method according to any one of the preceding claims, characterized in that the cultivating is at a pH value of from pH 6.5 to 7.5.

10. Method according to claim 9, characterized in that the cultivating is at a pH value of from pH 6.9 to 7.3.

11. Method according to claim 10, characterized in that the cultivating is at a pH value of from pH 6.95 to pH 7.05 or at a pH value of from pH 7.15 to pH 7.25.

12. Method according to any one of the preceding claims, characterized in that the immunoglobulin is an immunoglobulin of class G or class E.

13. Method according to any one of the preceding claims, characterized in that cultivating the host cell is performed for six to twenty days.

14. Method according to any one of the preceding claims, characterized in that the immunoglobulin is an anti-IL-6R antibody.

15. Composition comprising an immunoglobulin, characterized in that the composition has been prepared with a method according to any one of claims 1 to 14, characterized in that the immunoglobulin is an anti-IL-6R antibody and that the anti-IL-6R antibody is attached to a mannose-5 glycostructure of 8% or less.

16. The composition according to claim 15, characterized in that the anti-IL-6R antibody comprises Tocilizumab.

17. The composition according to claim 15, characterized in that the mannose-5 glycostructure is 6 % or less.

18. The composition according to claim 17, characterized in that the mannose-5 glycostructure is 4 % or less.

19. The composition according to any one of claims 15 to 18, characterized in that the G(0) glycostructure attached to the anti-IL-6R antibody is in the range from 40 % to 46 % and the G(2) glycostructure attached to the anti-IL-6R antibody is in the range from 9 % to 11 %.