

## **Claims**

1. A method of producing a recombinant protein in a host cell comprising adding polyethyleneimine (PEI) during cell culture.
2. A method of releasing recombinant protein expressed by a host cell culture comprising adding PEI during cell culture.
3. A method of reducing the viscosity of a cell culture expressing a recombinant protein, comprising adding PEI during cell culture.
4. A method of increasing the extracellular concentration of a recombinant protein expressed by the cell culture, comprising adding PEI during cell culture.
5. A method of reducing the length of time to harvest of a cell culture expressing a recombinant protein, comprising adding PEI during cell culture.
6. The method according to any one of the preceding claims wherein the recombinant protein is recovered from the extracellular medium.
7. The method according to any one of the preceding claims wherein the host cell or cell culture is a Gram-negative bacteria with a periplasm.
8. The method according to claim 7 wherein the Gram-negative bacteria is *Escherichia coli*.
9. The method according to any one of the preceding claims wherein PEI is added prior to harvest.
10. The method according to any one of the preceding claims wherein PEI is added at the time of induction or after inducing expression of the recombinant protein.
11. The method according to claim 9 or 10 wherein PEI is added at any point in time from induction of expression of the recombinant protein to around 30 minutes prior to harvest.
12. The method according to any one of the preceding claims, wherein the PEI is added continuously during cell culture.
13. The method according to any one of the preceding claims, wherein the PEI is branched.
14. The method according to any one of the preceding claims, wherein the molecular weight of the PEI is from 50-1000 kDa.
15. The method according to claim 14, wherein the molecular weight of the PEI is about 750 kDa.
16. The method according to any one of the preceding claims, wherein the recombinant protein (i) is an antigen binding protein; and/or (ii) has a Molecular Weight (MW) of 25 kDa or less.
17. Use of PEI during cell culture as a cell culture enhancer of a host cell culture expressing a recombinant protein.
18. Use of PEI as a release agent during cell culture to increase extracellular recombinant protein titre expressed by the cells.
19. The use according to claim 17 or 18, wherein the host cell or cell culture is *Escherichia coli* and/or the recombinant protein is recovered from the extracellular medium.