We Claim:

1. A method of preparing a recombinant lectin protein with improved cleavage of the initiator methionine, the method comprising; expressing a recombinant lectin protein encoded by a recombinant lectin gene in a host cell in culture, wherein:

a) an induction phase is intiated by adding an inducer to the culture;

b) the host cell is recombinant E coli, and expression is performed under conditions that the said cell has a doubling time between 100 minutes and 160 minutes, wherein said conditions include the following:

c) the induction phase is carried out at a temperature of at least 15°C and no more than 22°C and carbon to nitrogen ratio is maintained during the expression phase at from 3:1 to 6:1; wherein the recombinant lectin protein is selected from

   i) SEQ ID NO:1;

   ii) SEQ ID NO:3;

   iii) SEQ ID NO:4; or

   iv) an amino acid sequence having at least 90%, 95%, 97%, 98%, or 99% homology with i, ii, or iii;

d) the induction phase is carried out for at least 10 hours and the optical density of the culture is ateast 25 and no more than 40;

e) carbon source is added to the culture at a rate of from 0.5 to 2 $gL^{-1}h^{-1}$;

f) the nitrogen source is added to the culture at a rate of from 0.5 to 1.5 $gL^{-1}h^{-1}$;

g) an inducer concentration of at least 0.1mM and no more than 0.5mM wherein the inducer is IPTG (iso-propyl thio-galcto pyranoside);

h) purifying the crude recombinant lectin protein using at least one chromatography step, wherein the induction phase is carried out under conditions resulting in doubling time of 100 minutes and 160 minutes, thereby promoting cleavage of the initiator methionine from the recombinant lectin protein and obtaining a recombinant lectin protein in which less than 20% of recombinant lectin protein includes the initiator methionine.

2. The method as claimed in claim 1, wherein the host cell culture has a volume of at least 10L**.**

3. The method according to any one of claims 1 to 2, wherein the method comprises culturing the host cell, said culturing comprising: a growth phase during which the host cell is grown prior to protein expression; and an expression phase during which protein expression is performed, wherein the growth phase is carried out at a temperature which is greater than the temperature at which the expression phase is performed, and wherein the temperature is reduced from the growth phase to the expression phase over a period of at least 4 and no more than 7 hours.

4. The method as claimed in claim 1 , wherein the the method further comprises:

    a. optionally, cloning a recombinant lectin gene into an expression vector and inserting the expression vector into a host cell;

    b. culturing the host cell in a suitable medium, wherein said culturing comprises a growth phase which is carried out at a temperature of from 25° C. to 40° C, and an expression phase during which the recombinant lectin protein encoded by the recombinant lectin gene is expressed;

    c. optionally, isolating the recombinant lectin protein expressed in (b) to obtain a crude recombinant lectin protein by centrifugation followed by disruption of cell surface; and

    d. optionally, purifying the crude recombinant lectin protein to obtain a recombinant lectin protein isolate.

5. The method as claimed in claim 4, step ‘b’, wherein the carbon source is glucose or glycerol, and wherein the nitrogen source is tryptone, peptone or yeast extract.

6. The method as claimed in claim 4, wherein the nitrogen source is tryptone, peptone or yeast extract.

7. The method as claimed in claim 4, wherein isolating a crude recombinant lectin protein in step ‘d’ is carried out by centrifugation followed by disruption of cell surface.

8. The method as claimed in claim 4, wherein purifying the crude recombinant lectin protein in step ‘d’ comprises at least one chromatographic step selected from anion exchange chromatography, cation exchange chromatography or hydrophobic interaction chromatography.

9. The method as claimed in claim 8, wherein at least one chromatographic step comprises anion exchange chromatography and/or cation exchange chromatography.

10. The method as claimed in claim 8, wherein the at least one chromatographic step comprises hydrophobic interaction chromatography.

11. The method as claimed in claim 4, wherein purifying the crude recombinant lectin protein in step ′(d)′ comprises a filtration step.

12. The method as claimed in claim 4, wherein the host cell culture has a volume of at least 10L.

13. The method as claimed in claim 1, wherein purifying the crude recombinant lectin protein in step ‘h’ comprises:

    a) initial purification of the crude recombinant lectin protein by anion exchange chromatography to obtain a first purified elute;
    b) optional purification of the first purified elute by hydrophobic interaction chromatography to obtain a second purified elute;
    c) optional purification of the second purified elute by cation exchange chromatography to obtain a third purified elute;
    d) further purification of the first, second or third purified elute by anion exchange chromatography to obtain a fourth purified elute; and
    e) buffer exchange of the fourth purified elute by diafiltration to obtain a purified recombinant lectin protein isolate.