

We Claim :

1. A deoxyribonucleic acid (DNA) expression vector, and wherein said vector comprises a nucleotide sequence coding for a heterologous mammalian glutamine synthetase (GS) under the control of a Simian vacuolating virus 40 (SV40) promoter, a first expression cassette suitable for cloning of a heterologous recombinant protein under the control of a CMV promoter, wherein said GS comprises a protein sequence:

a) at least 94.5 % identical to the sequence of SEQ ID NO: 1 or to the sequence of SEQ ID NO: 2; or

b) consisting of a fragment of at least 100 consecutive amino acids of SEQ ID NO: 1 or SEQ ID NO: 2.

2. The DNA vector as claimed in claim 1, wherein said vector is a vector as defined in claim 20 or 21.

3. A deoxyribonucleic acid (DNA) expression vector, and wherein said vector comprises a nucleotide sequence coding for a heterologous mammalian glutamine synthetase (GS) under the control of a Simian vacuolating virus 40 (SV40) promoter, a first expression cassette suitable for cloning of an antibody light chain under the control of a CMV promoter, and a second expression cassette suitable for cloning of an antibody heavy chain under the control of a CMV promoter, wherein said GS comprises a protein sequence:

a) at least 94.5 % identical to the sequence of SEQ ID NO: 1 or to the sequence of SEQ ID NO: 2; or

b) consisting of a fragment of at least 100 consecutive amino acids of SEQ ID NO: 1 or SEQ ID NO: 2.

4. A combination of:

i) a Chinese Hamster Ovary (CHO) cell line; and

ii) a DNA (deoxyribonucleic acid) vector suitable for production of a recombinant protein, wherein said vector comprises a sequence coding for a heterologous mammalian glutamine synthetase (GS), wherein said GS comprises a sequence:

- at least 94.5% identical to the sequence of SEQ ID NO: 1 or to the sequence of SEQ ID NO: 2; or
- consisting of a fragment of at least 100 consecutive amino acids of SEQ ID NO: 1 or SEQ ID NO: 2.

5. A kit comprising the combination as claimed in claim 4.

6. An in vitro method of producing a recombinant protein comprising the steps of:

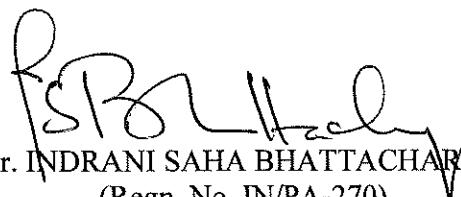
a) providing a CHO cell line

b) culturing said CHO cell line obtained under conditions suitable for production of the recombinant protein; and

c) isolating and/or purifying said recombinant protein.

7. The method as claimed in claim 6, further comprising the step of formulating said recombinant protein into a pharmaceutical composition.

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ABSTRACT

CHO EXPRESSION SYSTEM

A deoxyribonucleic acid (DNA) expression vector, and wherein said vector comprises a nucleotide sequence coding for a heterologous mammalian glutamine synthetase (GS) under the control of a Simian vacuolating virus 40 (SV40) promoter, a first expression cassette suitable for cloning of a heterologous recombinant protein under the control of a CMV promoter, wherein said GS comprises a protein sequence: a) at least 94.5 % identical to the sequence of SEQ ID NO: 1 or to the sequence of SEQ ID NO: 2; or b) consisting of a fragment of at least 1 00 consecutive amino acids of SEQ ID NO: 1 or SEQ ID NO: 2.