CLAIMS

What is claimed is:

1. A vector for expression of a protein of interest comprising a nucleic acid sequence encoding a selectable marker in operable association with a first promoter sequence and a nucleic acid sequence encoding the protein of interest operably linked to a second promoter sequence, wherein the first promoter sequence is a viral Self-Inactivating (SIN) Long Terminal Repeat (LTR) promoter sequence that is at least 95% identical to SEQ ID NO: 3.

2. The vector of claim 1, wherein the SIN LTR promoter sequence is SEQ ID NO:3.

3. The vector of any one of claims 1 to 2, wherein the selectable maker is Glutamine Synthetase (GS).

4. The vector of any one of claims 1 to 2, wherein the selectable maker is Dihydrofolate Reductase (DHFR).

5. The vector of any one of claims 1 to 4, wherein the vector comprises a single poly A signal sequence in operable association with said selectable marker and said nucleic acid encoding a protein of interest.

6. The vector of any one of claims 1 to 4, wherein the vector comprises a first poly A signal sequence in operable association with said selectable marker and a second poly A signal sequence in operable association with said nucleic acid encoding a protein of interest.

7. The vector of any one of claims 1 to 6, wherein the protein of interest is selected from the group consisting of an Fc-fusion protein, an enzyme, an albumin fusion, a growth factor, a protein receptor, a single chain antibody (scFv), a single chain-Fc (scFv-Fc), a diabody, and minibody (scFv-CH3), Fab, single chain Fab (scFab), an immunoglobulin heavy chain, and an immunoglobulin light chain.

8. The vector of claim 7, wherein the protein of interest is an Fc-fusion protein.

9. The vector of any one of claims 1 to 8, wherein the vector is a viral vector.

10. The vector of claim 9, wherein the vector is a retroviral vector.

11. The vector of any one of claims 1 to 10, wherein said vector is a plasmid.

12. A host cell comprising the vector of any one of claims 1 to 11.

13. The host cell of claim 12, wherein the host cell line is a GS knockout cell line.

14. The host cell of claim 13, wherein the host cell line is a DHFR knockout cell line.

15. The host cell of any one of claims 12 to 14, wherein the host cell line is selected from the group consisting of a Chinese Hamster Ovary (CHO) cell, a HEK 293 cell and a CAP cell.

16. The host cell of any one of claims 12 to 15, wherein the host cell comprises from 1 to 1000 copies of the vector.

17. The host cell of any one of claims 12 to 15, wherein the host cell comprises from 10 to 200 copies of the vector.

18. The host cell of any one of claims 12 to 15, wherein the host cell comprises from 10 to 100 copies of the vector.

19. The host cell of any one of claims 12 to 15, wherein the host cell comprises from 20 to 100 copies of the vector.

20. The host cell of any one of claims 12 to 19, wherein the host cell further comprises at least a second vector that encodes and allows for expression of a second protein of interest, and wherein said second vector does not include a selectable marker.

21. The host cell of any one of claims 12 to 19, wherein the host cell further comprises at least a second vector that encodes and allows for expression of a second protein of interest, and wherein said second vector includes a selectable marker that is different from the selectable marker in the first vector.

22. The host cell of any one of claims 20 to 21, wherein the first protein of interest in the first vector is one of an immunoglobulin heavy or light chain and the second protein in the second vector is the other of an immunoglobulin heavy or light chain.

23. The host cell of claim 22, wherein the first protein of interest is an immunoglobulin heavy chain and the second protein of interest is an immunoglobulin light chain.

24. The host cell of any one of claims 20 to 23, wherein the host cell comprises from 1 to 1000 copies of the second vector.

25. The host cell of any one of claims 20 to 23, wherein the host cell comprises from 10 to 200 copies of the second vector.

26. The host cell of any one of claims 20 to 23, wherein the host cell comprises from 10 to 100 copies of the second vector.

27. The host cell of any one of claims 20 to 23, wherein the host cell comprises from 20 to 100 copies of the second vector.

28. A host cell culture comprising host cells according to any one of claims 12 to 27.

29. The host cell culture of claim 28, wherein said culture produces from 1 to 150 picograms/cell/day of the protein of interest.

30. The host cell culture of claim 28, wherein said culture produces from 2 to 50 picograms/cell/day of the protein of interest.

31. A process for producing a protein of interest comprising culturing host cells according to any one of claims 12 to 30 and purifying the protein of interest from the host cell culture.