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(54) **HIGH LEVEL PROTEIN EXPRESSION SYSTEM**

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(57) **ABSTRACT**

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The present application is directed to a system for expressing high levels of a protein of interest in a cell. Preferably the system includes introducing into a mammalian cell line an expression vector that comprises a gene encoding a selectable marker under the control of a weak promoter to facilitate integration of the expression vector into genomic areas that result in high levels of expression, along with a gene encoding the protein of interest. The gene of interest is linked to a strong promoter which results in high levels of expression of the desired protein. In one embodiment, the protein of interest is detrimental or toxic to cells, and the promoter is an inducible promoter. In another embodiment, the protein of interest is a glycoprotein, including membrane proteins, and the cell line has been mutated to inactivate N-acetylglucosamine transferase I to ensure uniform glycosylation. Preferably the cell is a mammalian or an insect cell.

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