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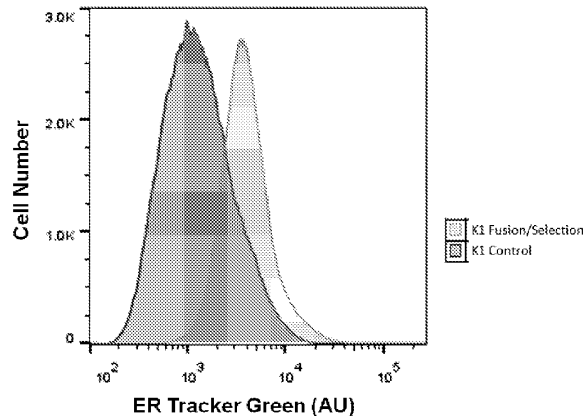
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(54) Title: CELL LINES FOR HIGH LEVEL PRODUCTION OF PROTEIN-BASED PHARMACEUTICALS

Figure 1



(57) **Abstract:** This disclosure provides improved cell lines for manufacture of protein-based pharmaceutical agents, considerably reducing the cost of commercial production. The cell lines are obtained by selecting cells from a mixed population for one or more characteristics that support protein production on a non-specific basis, such as the level of endoplasmic reticulum, Golgi apparatus, and/or other desired phenotypic features, compared with other cells in the starting mixture. Particularly effective producer cell lines can be obtained by preparing the cells for functional selection by making cell hybrids. A gene encoding a therapeutic protein of interest may be transfected into the cells before or after one or more cycles of fusion and selection. Depending on the protein product being expressed, cell lines may be obtained that produce eight grams or more of protein per liter of culture fluid.



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