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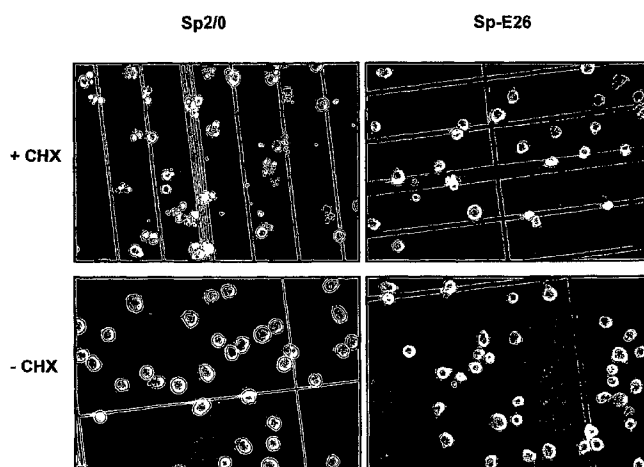
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(54) Title: IMPROVED METHODS AND COMPOSITIONS FOR INCREASING LONGEVITY AND PROTEIN YIELD FROM A CELL CULTURE



(57) Abstract: Disclosed are compositions and methods for increasing the longevity of a cell culture and permitting the increased production of proteins, preferably recombinant proteins, such as antibodies, peptides, enzymes, growth factors, interleukins, interferons, hormones, and vaccines. Cells transfected with an apoptosis-inhibiting gene or vector, such as a triple mutant Bcl-2 gene, can survive longer in culture, resulting in extension of the state and yield of protein biosynthesis. Such transfected cells exhibit maximal cell densities that equal or exceed the maximal density achieved by the parent cell lines. Transfected cells can also be pre-adapted for growth in serum-free medium, greatly decreasing the time required to obtain protein production in serum-free medium. In certain methods, the pre-adapted cells can be used for protein production following transformation under serum-free conditions. The method preferably involves eukaryotic cells, more preferably mammalian cells.

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