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- (71) **Applicant:** CYTIVA SWEDEN AB [SE/SE]; Björkgatan 30, 751 84 Uppsala (SE).
- (72) **Inventors:** JONSSON, Andreas; Cytiva Sweden AB, Björkgatan 30, 751 84 Uppsala (SE). IVANSSON, Daniel; Cytiva Sweden AB, Björkgatan 30, 751 84 Uppsala (SE).
- (74) **Agent:** ALDENBÄCK, Ulla et al.; Cytiva Sweden AB, Björkgatan 30, 751 84 Uppsala (SE).
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(54) **Title:** METHODS FOR THE SELECTION OF NUCLEIC ACID SEQUENCES

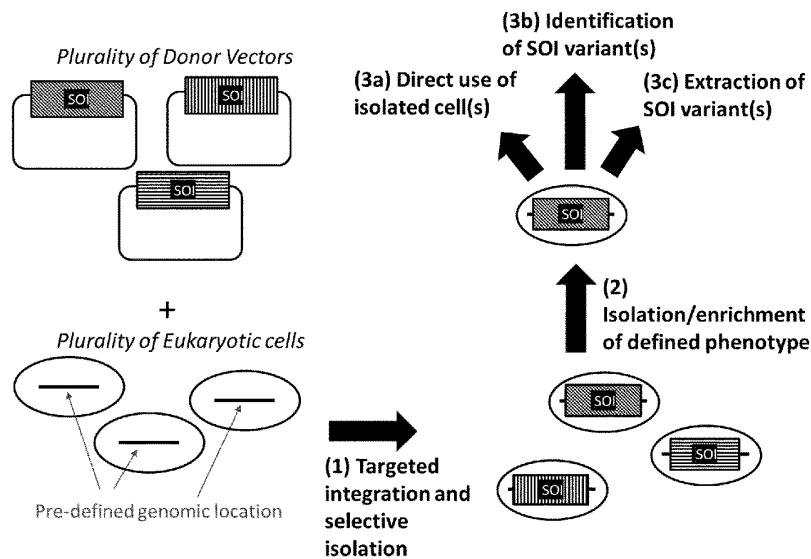


Figure 1

(57) **Abstract:** The present disclosure relates to a method for targeted integration of a donor vector into a specific pre-defined genomic location of an isolated eukaryotic host cell. The vector and host cell together comprise nucleic acid components allowing for the selection of cells having integrated the donor vector into the pre-defined genomic location of the host cell. More specifically, the present method provides for the selection of sequence optimized nucleic acid sequence variants. Such optimized nucleic acid sequence variants may comprise sequence optimized expression vector components for subsequent use in recombinant protein production.

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