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(54) **Title**: IMPROVED MEGANUCLEASE RECOMBINATION SYSTEM

(57) **Abstract**: The invention relates to a set of genetic constructs which comprises at least a first recombinogenic construct (i) with at least two portions homologous to the genomic regions preceding and following the DNA target site of a site specific endonuclease and also comprising both a negative selection and positive selection mark interposed with the homologous portions as well as a region into which a sequence of interest can be cloned adjacent to the positive selection marker; and a second construct (ii, iii or iv) comprising the meganuclease. The present invention also relates to a kit comprising these constructs and methods to use this set of constructs to introduce into the genome of a target cell, tissue or organism a sequence of interest.