



Vertebrates: Sleeping Beauty Transposon for Efficient DNA Delivery into Wide Array of Cells

Technology ID

96135

Category

Life Sciences/Research Tools

Sleeping BeautyTM Transposon

The Sleeping BeautyTM (SB) Transposon System is a highly efficient and extensively tested system for inserting DNA of interest into chromosomes for high level, long-term gene expression. The SB system involves a “cut and paste” transposon system and can be used for the efficient delivery of DNA to a wide range of cells, including cultured mammalian cells, mouse embryos, primary cells, and embryonic cells.

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Gene Therapy Among Potential Applications

- Large scale gene disruption/mutagenesis
- Stable gene transfer into cultured cells, primary cells, stem cells
- Generation of transgenic animals, such as mice, rats & rabbits
- Expression cassette for gene therapy

Non-viral Vector Provides Efficient Chromosome Integration

The Sleeping BeautyTM Transposon is a non viral vector, thus eliminating the safety concerns surrounding viral sequences. The SB is a simple, yet robust system, containing two plasmids that are easy to work with and have been found to be successful in a wide array of both cultured cells as well as transgenic animals. This transposon system also provides efficient chromosome integration while providing long-term expression of target genes.

BENEFITS OF THE SLEEPING BEAUTYTM TRANSPOSON SYSTEM:

- SB is a simple, robust system of two plasmids that are easy to work with
- Non viral vector, eliminating the safety concerns surrounding viral sequences
- “Cut and paste” transposon method
- Provides efficient integration in chromosomes
- Long-term expression of target genes
- Versatile—works both cultured cells as well as transgenic animals

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