Docket #: S03-001

A Modified Hyperactive Transposon Vector for Gene Therapy [Sleeping Beauty]

Applications

- Enhance transposon-mediated gene transfer for the production of transgenic cells and animals, peptide and protein production, and for use in gene therapy

Advantages

- Modified transposase alone should enhance gene transfer by at least 7-fold compared to the unmodified transposase
- Could enhance gene transfer by more than 14-fold if modified transposase is combined with transposon modifications
- Applicable in mammalian-based systems since hyperactive transposases were assessed in cultured human cells and *in vivo* in mice

Publications

- Zayed H, Xia L, Yerich A, Yant SR, Kay MA, Puttaraju M, McGarrity GJ, Wiest DL, McIvor RS, Tolar J, Blazar BR. Correction of DNA protein kinase deficiency by spliceosome-mediated RNA trans-splicing and sleeping beauty transposon delivery. Mol Ther. 2007 Jul;15(7):1273-9.

Patents

- Published Application: 20050003542

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