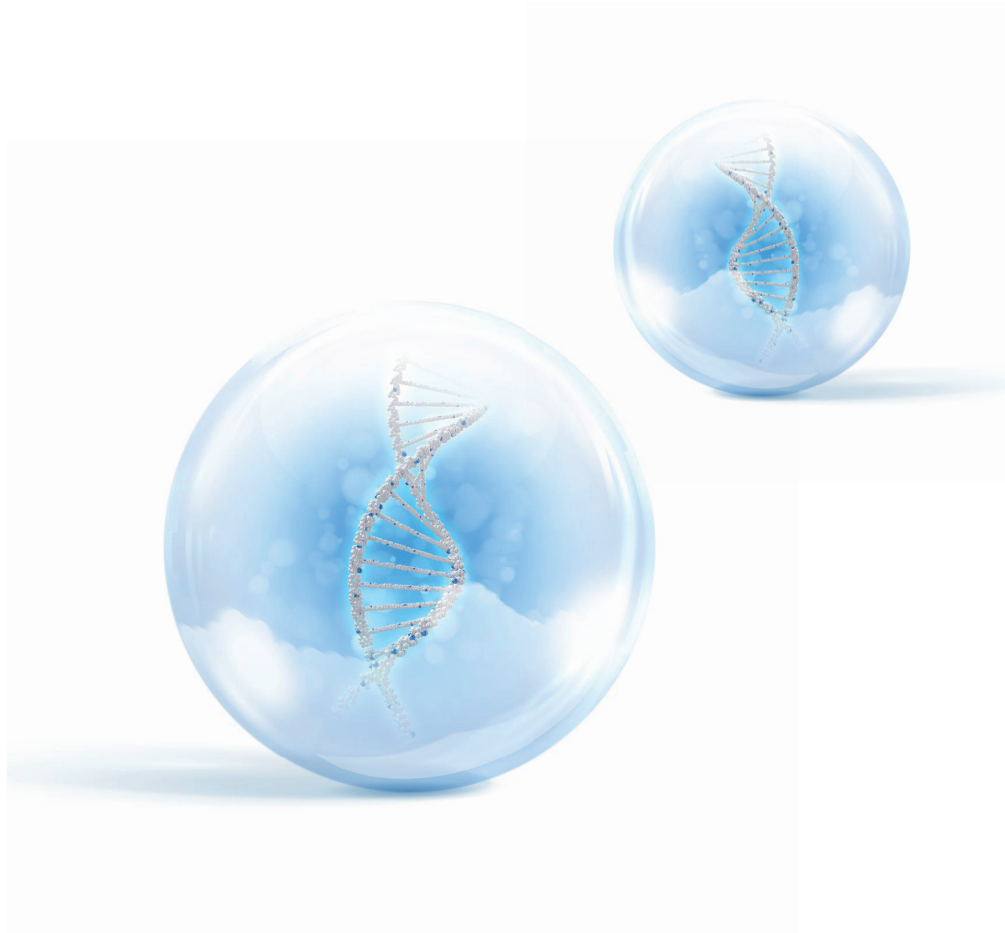




OZBIOSCIENCES
The art of delivery systems

Transfection reagents Transduction tools



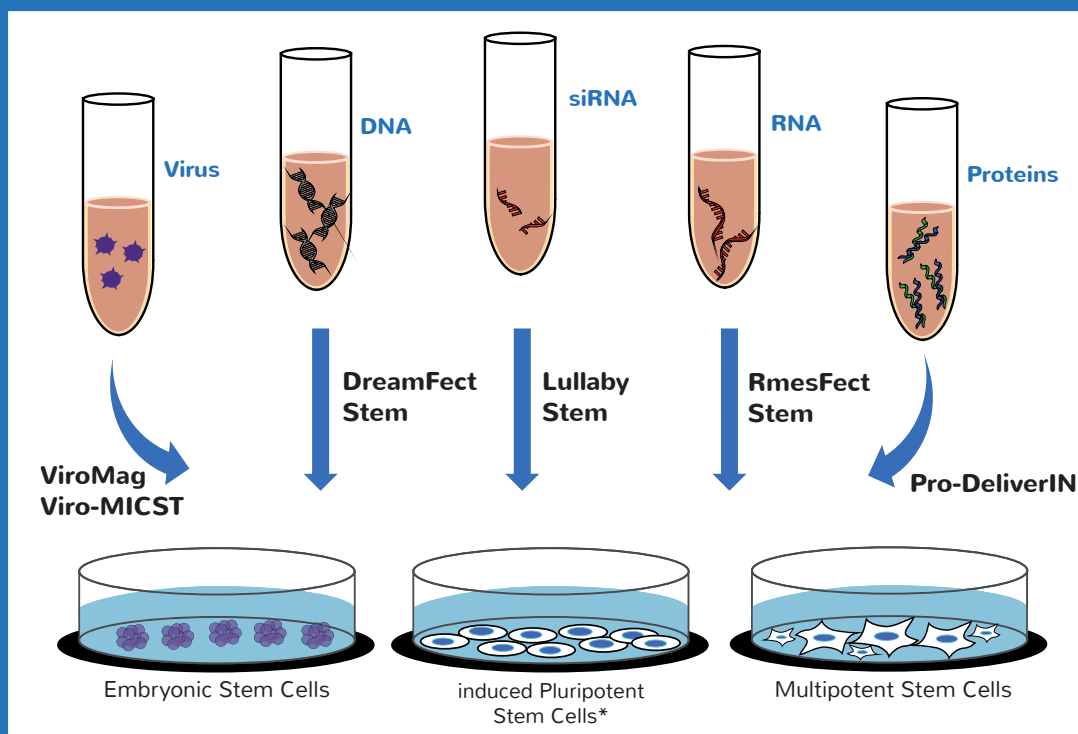
STEM CELL APPLICATIONS

*Adult Stem Cells - Embryonic Stem Cells
Induced Pluripotent Stem Cells (iPS)*

A broad range of solutions for

STEM CELL WORKFLOW

Stem cells research studies require in many cases to alter gene expression via overexpression or silencing. In this context, OZ BIOSCIENCES has developed a complete product line to transfect or transduce stem cells.



*Additional products may also be recommended for iPS reprogramming. Contact us: tech@ozbiosciences.com

Virus Applications

ViroMag Reagents are magnetic nanoparticles formulations designed to improve any virus infection or transduction capacities with the influence of a magnetic field. **ViroMag R/L** and **AdenoMag** reagents are optimized for use on Retrovirus/ Lentivirus and Adenovirus, respectively.

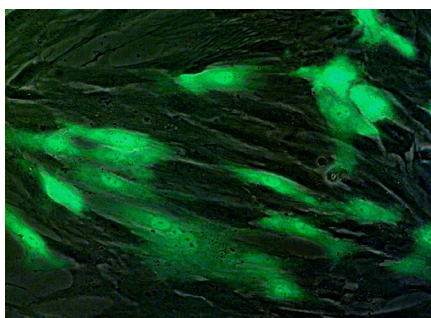


Figure 1: Mesenchymal Stem Cells (MSC) transduced with lentivirus (MOI 1) and ViroMag R/L

- Highly enhance transduction efficiency with low vector doses
- Accelerate the transduction process
- Concentrate viruses onto cells in minutes
- Synchronise cells adsorption/infection
- Ideal for hard-to-infect and non-permissive cells

Viro-MICST Transduction Reagent, based on the i-MICST™ Technology*, allows to genetically modify cells directly on magnetic cell purification columns.

*Integrated Magnetic Immuno-Cell Sorting and Transduction

any Stem Cell Applications

DNA Transfection

DreamFect™ Stem, a biodegradable reagent, outperforms other transfection reagents on Stem Cells.

- High transfection efficiency
- Cell phenotype and differentiation potential are not affected
- No toxicity due to reagent biodegradability and low DNA amount required
- Reliable and reproducible results

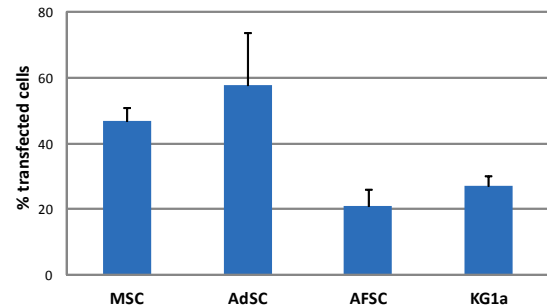


Figure 2: Percentage of Human Stem Cells (MSC, AdSC, AFSC, KG1a) transfected with DreamFect™ Stem reagent

RNA Transfection

Lullaby™ Stem/ RmesFect™ Stem are specifically designed for siRNA/ mRNA transfection of Stem Cells.

- High efficiency with reliable results
- No toxicity due to their biodegradability and low siRNA/mRNA amount required
- **Lullaby Stem** allows to reach up to 90% gene silencing
- No need for nuclear uptake with **RmesFect Stem**, ideal for iPS generation. mRNA transfection into proteins occurs in the cytoplasm. No genomic integration

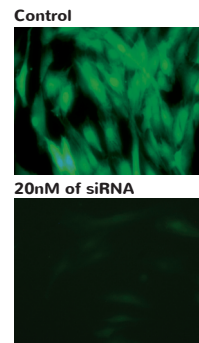


Figure 3: Gene Silencing in GFP-AFSC using **Lullaby Stem** and siRNA targeting GFP

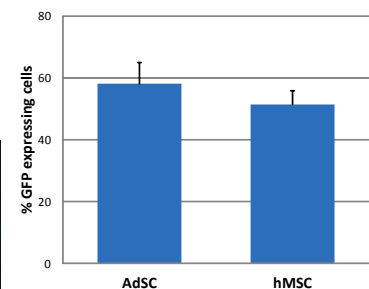


Figure 4: Transfection of mRNA encoding GFP with **RmesFect Stem** reagent

Protein Transfection

Pro-DeliverIN™ & Ab-DeliverIN™ transfection reagents are innovative reagents allowing intracellular delivery of biologically active proteins or antibodies.

- Intracellular delivery of functional proteins and antibodies
- Biodegradable and non-toxic
- Perfect for any stem cells
- Suitable for a variety of proteins including recombinant transcription factors
- Fast protein delivery

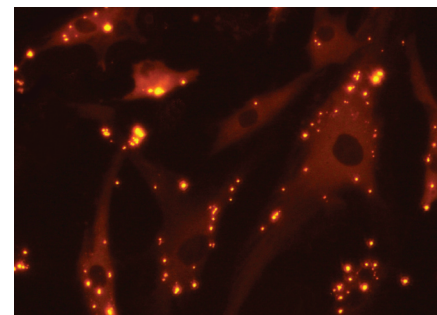


Figure 5: AdSC transfection with ProDeliverIN and R-Phycoerythrin

OZ Biosciences supplies several solutions for stem cells applications:

- Enhancement of viral transduction - **ViroMag, ViroMag R/L, AdenoMag**
- Highly efficient DNA transfection - **DreamFect™ Stem**
- Easy mRNA transfection - **RmesFect™ Stem**
- Delivery of siRNA or miRNA - **Lullaby™ Stem**
- Transport of recombinant proteins – **Pro-DeliverIN™ and Ab-DeliverIN™**
- Senescence detection – **Senescence kit**
- Integrated Magnetic Immuno-Cell Sorting and Transduction - **Viro-MICST™**

Visit us and discover our technical tools

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- Cell Transfection Database
- Scientific Newsletters
- FAQ and Tips

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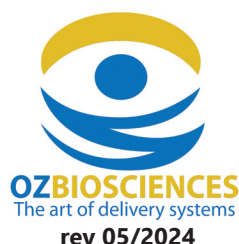
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