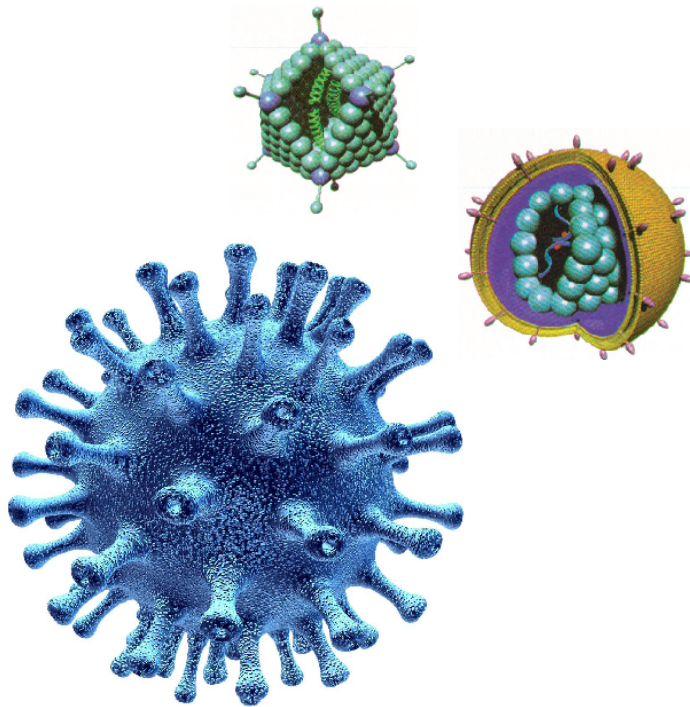




OZBIOSCIENCES
The art of delivery systems

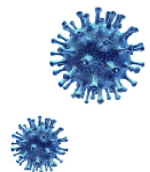
Transduction - Infection tools



Enhance, synchronize and accelerate transduction/infection
Production, capture, concentration & storage

VIRAL APPLICATIONS

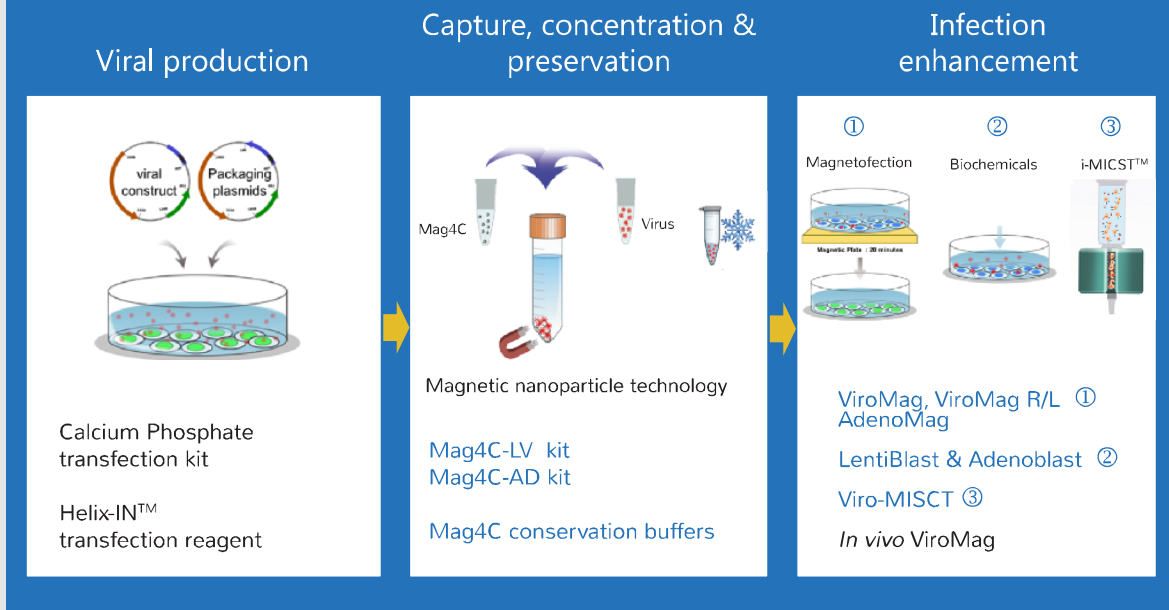
PRODUCTION
CAPTURE
INFECTION



Production - Capture

VIRAL WORKFLOW

Cells transduction represents a powerful tool to genetically modify a wide variety of cell lines, primary cells, tissues and organs. OZ Biosciences has created a comprehensive line of reagents dedicated to viral applications.



Mag4C

Capture Efficiency: 80-99%

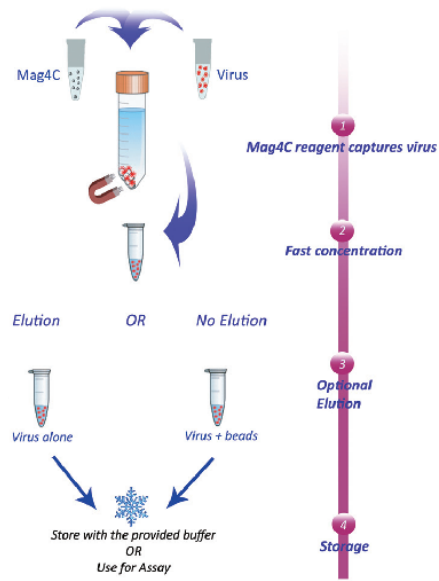


Figure 1: Mag4C Protocol

Capture, Concentrate & Store Viruses

Mag4C-LV (Lentivirus) & Mag4C-AD (Adenovirus) reagents are based on a magnetic virus concentration technology (magnetic nanoparticles).

- Concentration of viruses by magnetic capture in 30-45 minutes
- 80 to 99% of viral capture and recovery
- Reduce handling steps - Avoid ultracentrifugation, precipitation and chemicals
- Improve virus preservation

Mag4C conservation buffers (LV & AD) can be ordered separately from the kit. These buffers preserve virus infectivity during storage and minimize loss of viral titers during storage and freeze/thaw cycles.

Concentration - Transduction

Based on the Magnetofection™ technology (see next page), ViroMag, ViroMag R/L and AdenoMag allow to concentrate the complete applied dose of viral particles onto cells within minutes.

- Highly enhance transduction efficiency with low vector doses
- Accelerate the transduction kinetics
- Concentrate viruses onto cells in minutes
- Synchronize cell absorption/infection
- Extend tropisms to non-permissive cells

«Magnetic Nanoparticles Enhance Adenovirus Transduction *In Vitro* and *In Vivo*.» Sapet *et al.* (2011) Pharm. Res.

«Synchronous infection of SIV and HIV *in vitro* for virology, immunology and vaccine-related studies.»

T Lymphocyte CD4+ | Sacha J.B. *et al.* (2010) Nat Protoc.

ViroMag & AdenoMag

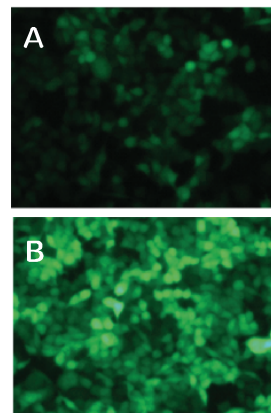


Figure 2: HeLa cells infected with A) Lentivirus only B) Lentivirus+ViroMag

Having a magnetic cell purification system?

This technology combines cell sorting and genetic modification in one simple and reliable integrated system.

- Capture virus and infect cells within a magnetic cell purification column
- Transduction and isolation in one integrated system
- Allow to reduce cell manipulation and save time
- Suitable with any viral vector

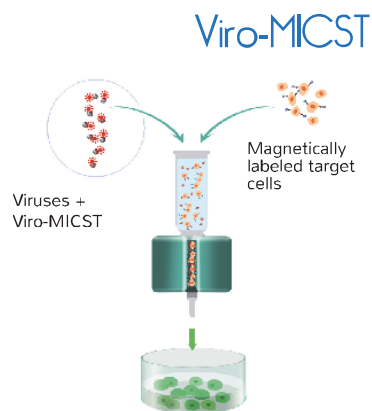


Figure 3: Viro-MISCT™ technology

LentiBlast and AdenoBlast reagents have patent-protected chemical compositions that improve significantly infection or transduction efficiency.

- Enhance infection and transduction efficiency of lentivirus or adenovirus
- Non-toxic & compatible with all cells
- Allow using low MOI

«We use LentiBlast to help achieve high transduction efficiency of human primary T cells. It has lower toxicity than Polybrene which is traditionally used to enhance transduction & efficiency was doubled compared to Polybrene.» Nina F - Albert Einstein College of Medicine

LentiBlast & AdenoBlast

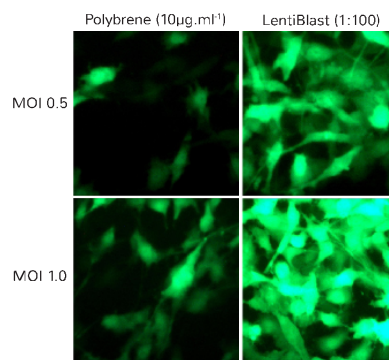


Figure 4: Transduction of NIH-3T3 cells

Related Products for Viral Applications:

- Viral Production: [Helix-IN™ transfection reagent - Calcium Phosphate Transfection kit](#)
- *In vivo* infection: [in vivo ViroMag](#)



MAGNETOFECTION™ PRINCIPLE

The Magnetofection™ technology is a simple and highly efficient method to transfect or to transduce cells. This technology exploits magnetic force to drive nucleic acids associated with magnetic nanoparticles into targeted cells within minutes allowing 100% of cells to uptake nucleic acids.

Magnetofection™ is the perfect solution for hard-to-transfect and primary cells. Several optimized reagents have been designed according to defined applications, including the popular [NeuroMag](#), specific for Neurons transfection.



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