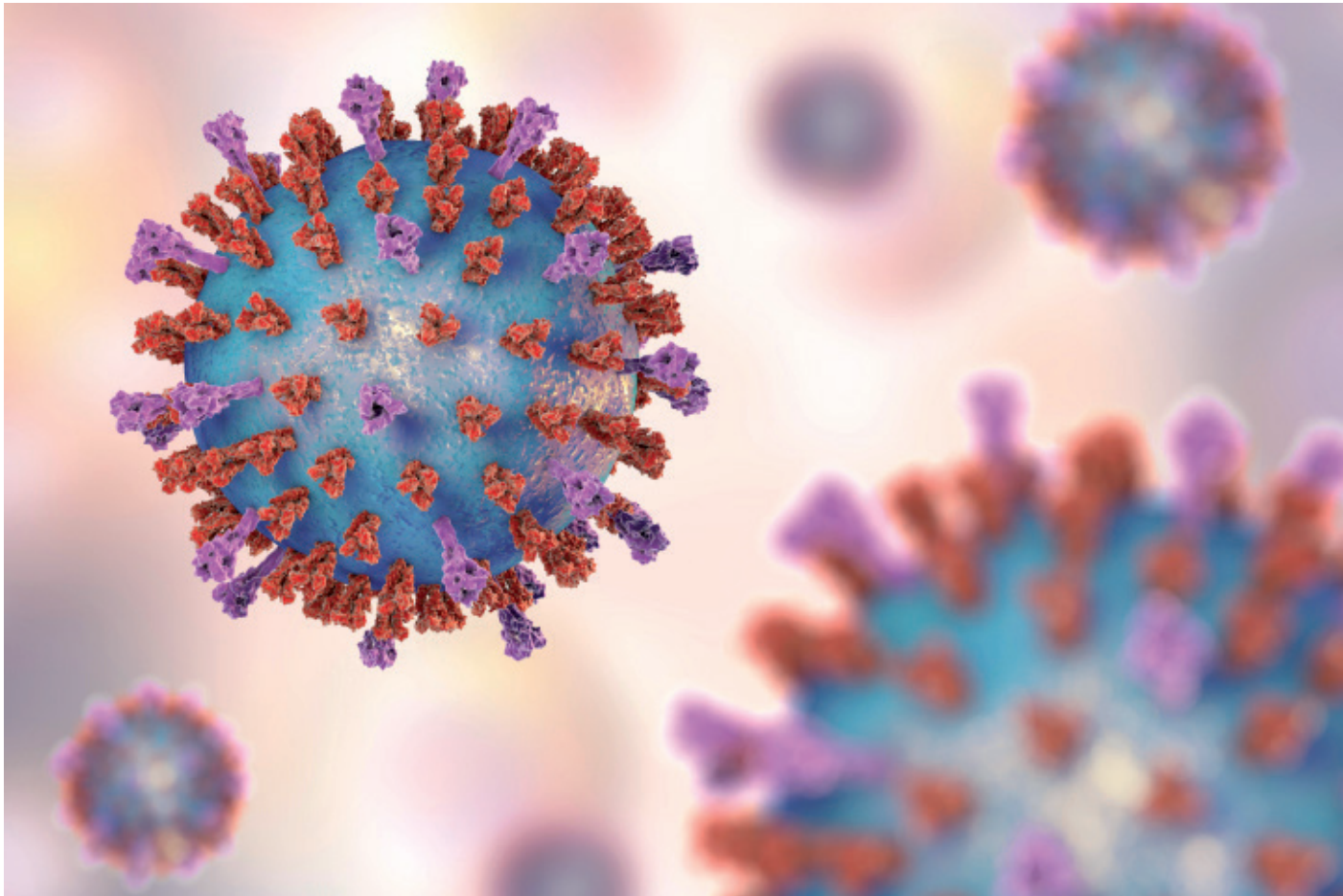




OZ BIOSCIENCES
The art of delivery systems



Enhancing lentiviral transduction

LentiBlast™ Premium Transduction Enhancer

Lentiviral transduction enhancer in either

Unlock seamless transduction : introducing LentiBlast™ Premium

LentiBlast™ Premium is the ideal reagent to enhance lentiviral infection and transduction in any type of cells, adherent or in suspension, primary or cell lines.

Its patented chemical composition allows to simultaneously neutralize electrostatic repulsions between membrane and viral particles and to enhance viral fusion with cell membrane.

Due to a favorable "membrane permeable effect" limiting the transmembrane potential changes, **LentiBlast™ Premium** is non-toxic and totally compatible with cell viability and overcomes obstacles that prevent successful transduction (cell density, passage number, lentivirus purity, MOI, ...).

LentiBlast™ Premium enhances Lentiviral infection in any cell types

The results demonstrated capacity of **LentiBlast™ Premium** to enhance infection and transduction in adherent and suspension cell lines

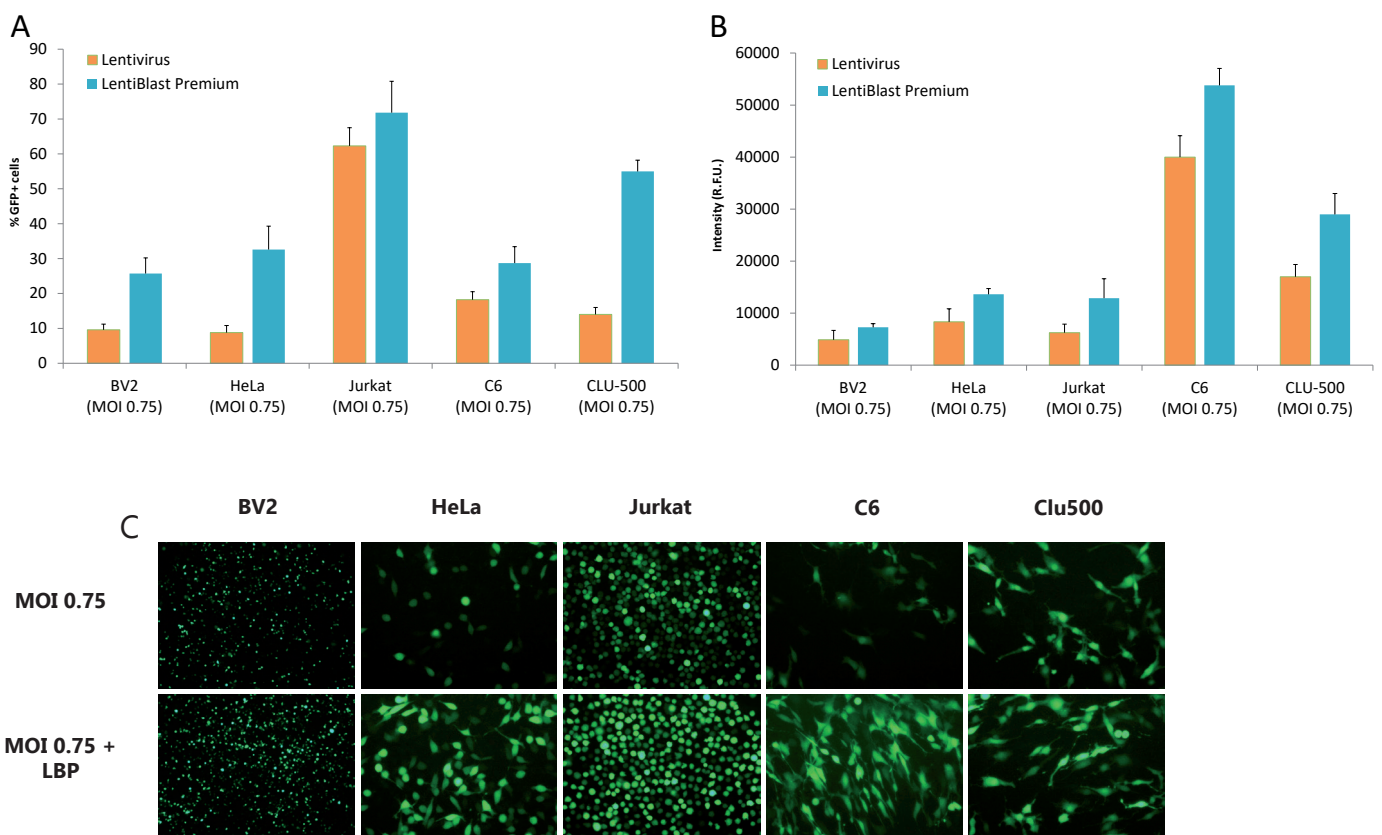


Fig 1 : Cell lines were infected at MOI 0.75 (0.75 viral particles per cell) using a HIV-SFFV-GFP lentivirus in presence of LentiBlast Premium (LBP) at at 1:100th dilution. 72 hours after transduction, % of GFP positive cells (A) and total intensity (B) were analysed by flow cytometry and fluorescence microscopy (C).

adherent or suspension, primary or cell lines

LentiBlast™ Premium outstands competitors reagents - ideal for stem cells

Compared to competitors, **LentiBlast™ Premium** induces the most higher fold increase in infection.

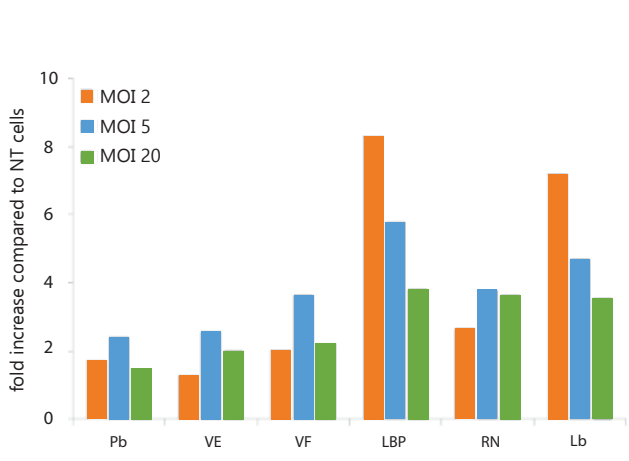


Fig 2 : Comparison of transduction enhancers of CD34+ cell line with lentiviral vector. KG1a were infected with GFP encoding lentivirus at M.O.I. of 2, 5 and 20 in presence or not of transduction enhancers. Fold increase in transduction was calculated in comparison to non treated cells. NT, non treated infected cells; Pb, polybrene; VE, ViralEntry; VF, Vectofusin; LBP, **LentiBlast Premium**; RN, RetroNectin; Lb, LentiBOOST. Results are given as the mean of samples (n=3) ± SD.

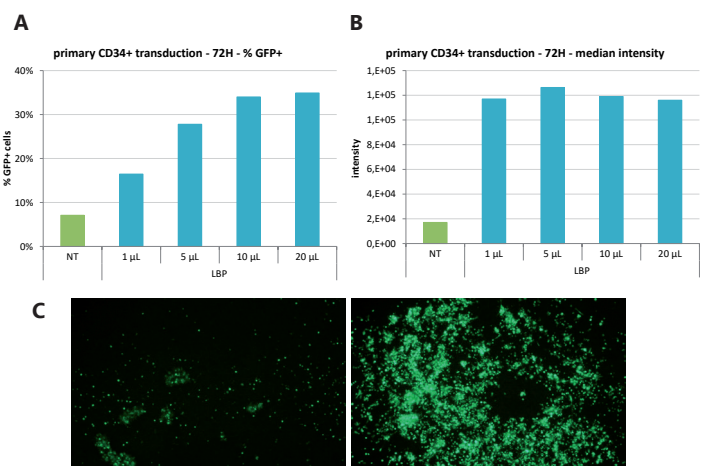


Fig 3 : CD34+ stem cell line KG1a was transduced with increasing MOI of Lentivirus encoding for GFP in presence or not of 10 µL of **LentiBlast Premium** (LBP). After 72 h incubation, transduction efficiency was visualized under fluorescence microscopy (A) and % of GFP positive cells (B) and mean intensity (C) of genetically modified cells were evaluated by flow cytometry.

LentiBlast™ Premium is non-toxic

LentiBlast™ Premium : lentiviral transduction enhancer is non-toxic even at high concentration.

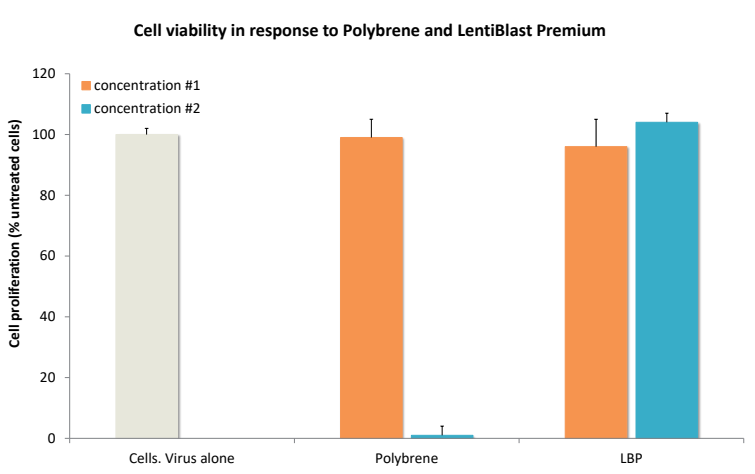
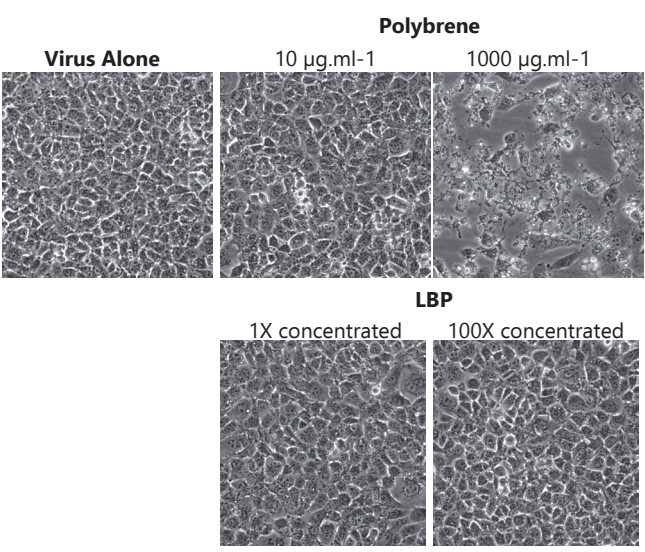
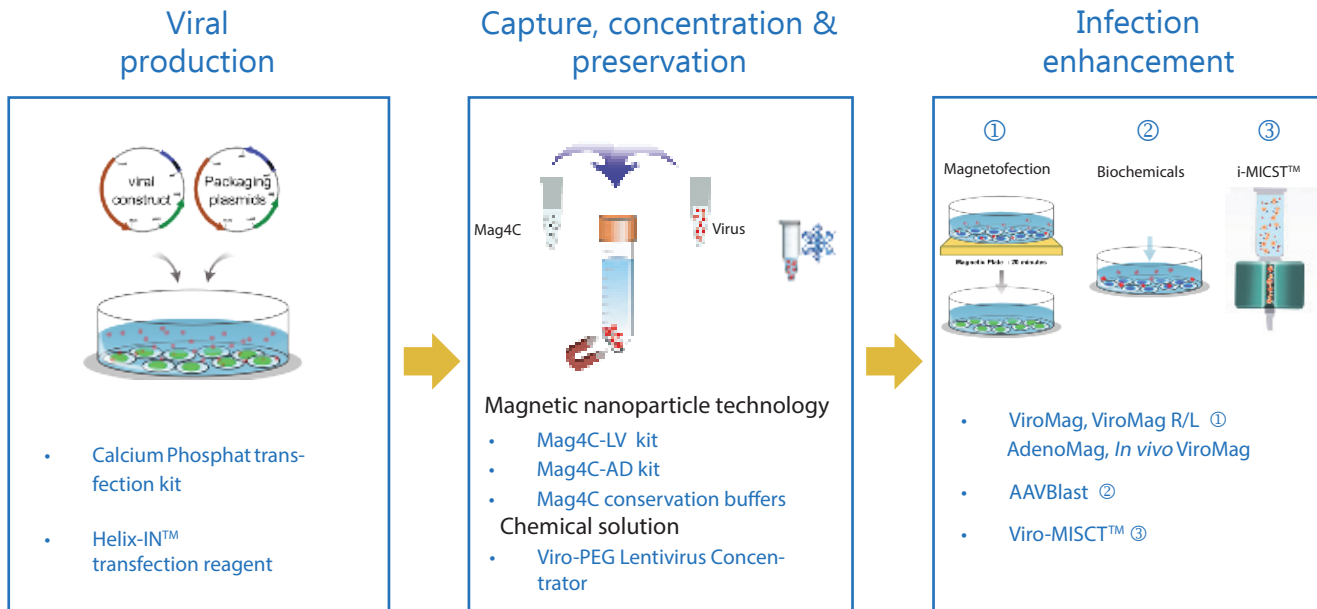


Fig 4 : COS-7 cells were infected with a lentivirus in presence or not of enhancers at two concentrations. Polybrene was used at 10 µg/mL and 1000 µg/mL (concentration #1 and #2, respectively) and LentiBlast Premium - LBP was used diluted 1 time or 100 times (concentration #1 and #2 respectively). 72 h after transduction cell viability was visualized under microscopy and percentage of living cells was determined using the MTT Cell Proliferation Assay Kit (OZ Biosciences - Ref # MT01000).

Related products :

OZ Biosciences has created a comprehensive line of reagents dedicated to viral applications to help you in your research.



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