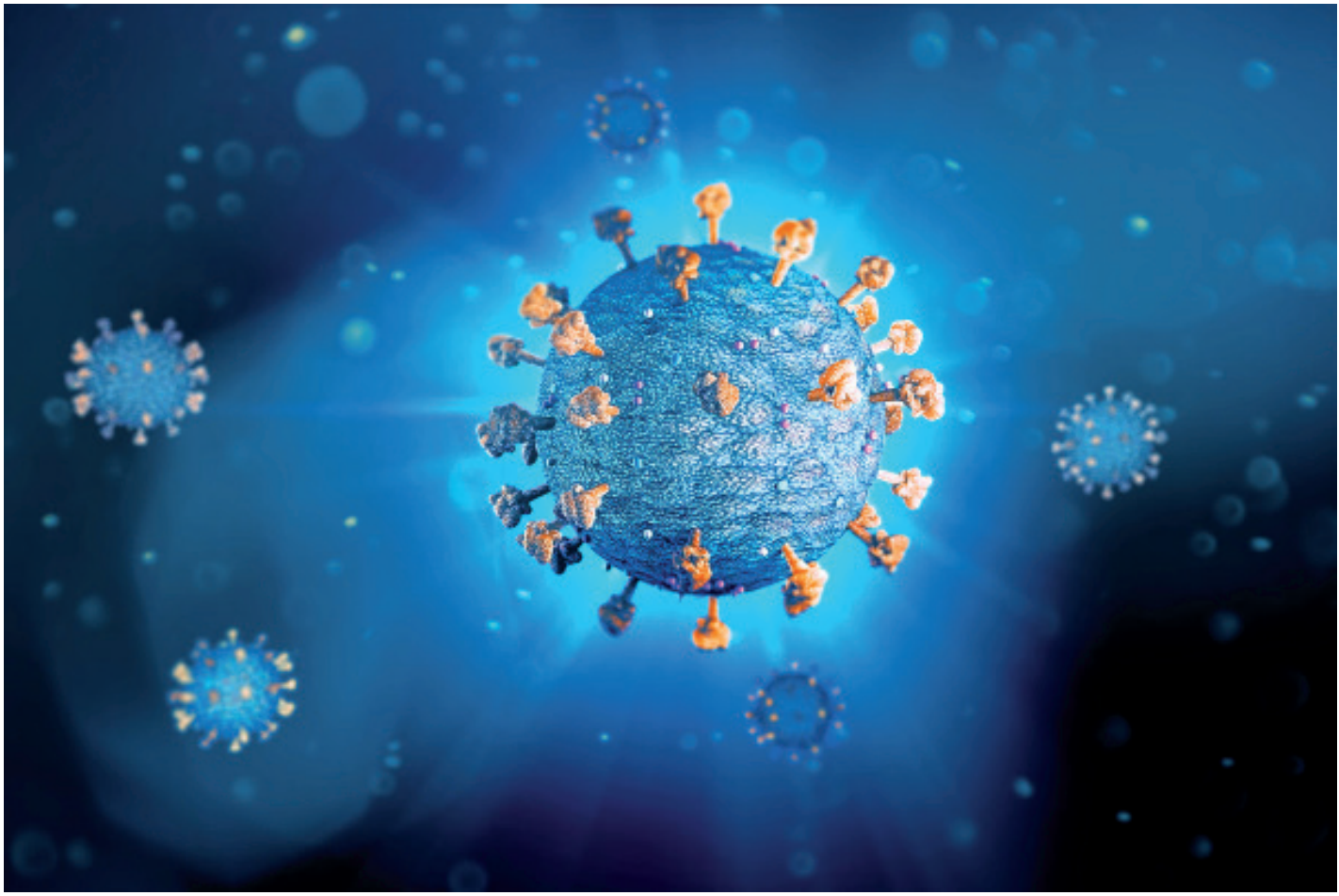
OZ BIOSCIENCES
The art of delivery systems



Enhancing AAV transduction

AAVBlast Transduction Enhancer

Viral Applications

Thermoresponsive AAV transduction enhancer

AAVBlast : Elevating genetic modification with advanced AAV transduction enhancement

AAVBlast is a chemical AAV transduction enhancer, very effective to promote viral-mediated genetic modification.

AAVBlast improves transduction of various AAV serotypes in a wide range of cell types from classic cell lines to primary cells or mesenchymal stem cells. Its patented formulation and unique thermoresponsive gelling properties, ensure the protection of viral particles and permit an increase in transduction efficiency.

Non-toxic, the new **AAVBlast** AAV transduction enhancer is also compatible with *in vivo* experiments.

AAVBlast allows enhancing transduction of various AAV serotypes

Complexes of AAV2 and AAV6 serotypes viral particles encoding for GFP and **AAVBlast** were formed by a 10min incubation time at 37°C according to the protocol before addition to cells. Medium was complemented with serum 2h later and results were analyzed after 72h of incubation. The percentage of GFP+ cells was determined by flow cytometry.

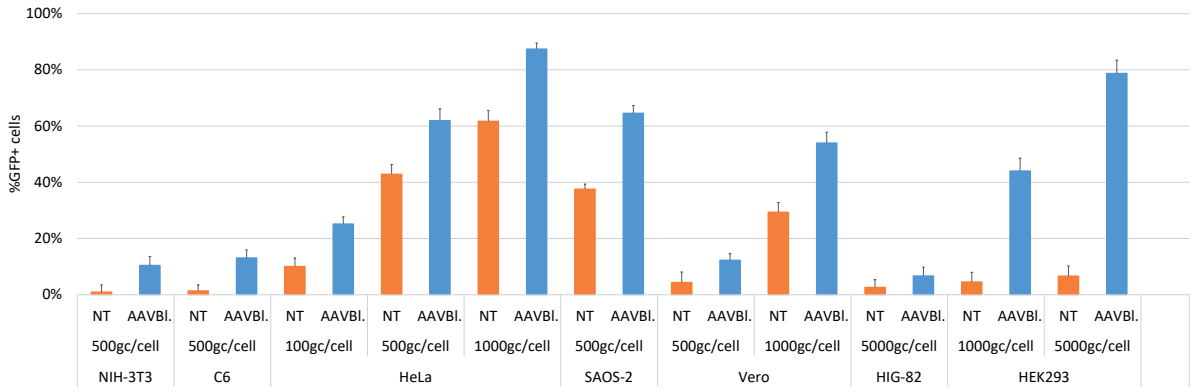


Fig 1 : NIH-3T3, C6, HeLa, SAOS-2, Vero, HIG-82 and HEK293 cell lines were transduced with AAV6 at one, two or three MOIs in presence or not of **AAVBlast** according to the protocol. % of GFP+ cells was determined 72h after transduction by flow cytometry.

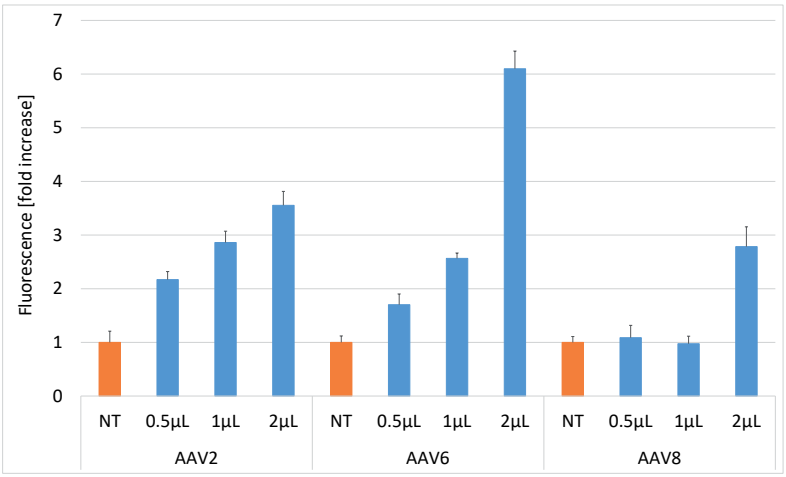


Fig 2 : Ovine mesenchymal stem cells were transduced with AVV serotypes 2,6 and 8 in presence or not of ranging doses of **AAVBlast**. 72H after, fluorescence intensity of transduced cells were determined by flow cytometry.

for various AAV serotypes and cell types

Compared to competitor, AAVBlast increases the transduction of AAV viral particles

AAV2 viral particles encoding for GFP were complexed to a commercial Viral Enhancer (VE) or **AAVBlast** according to their respective protocols. Medium was complemented with serum 2h later for **AAVBlast** and results were analyzed after 72h of incubation. The percentage of GFP+ cells was determined by flow cytometry.

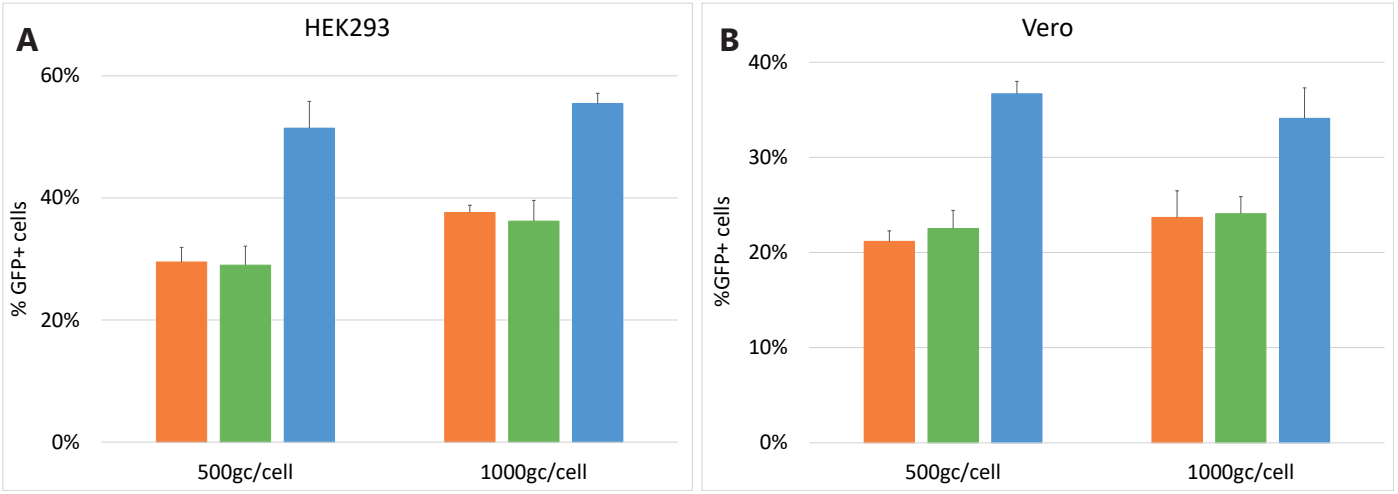


Fig 3 : HEK293 (A) and Vero cells (B) were transduced with AAV2 at two MOI in presence or not of commercial viral enhancer (VE) or **AAVBlast** according to their respective protocol. % of GFP+ cells was determined 72h after transduction by flow cytometry.

AAVBlast and stabilization of AAV particles for a better conservation

AAV2 and AAV6 viral particles were mixed with PBS or **AAVBlast** and incubated at 37°C as recommended by the protocol. After 10min, complexes were stored either at 4°C and 37°C over a month. HeLa cells were transduced with the complexes 7, 15 or 30 days after complex preparation and infection was monitored by fluorescence microscopy or flow cytometry 72h later.

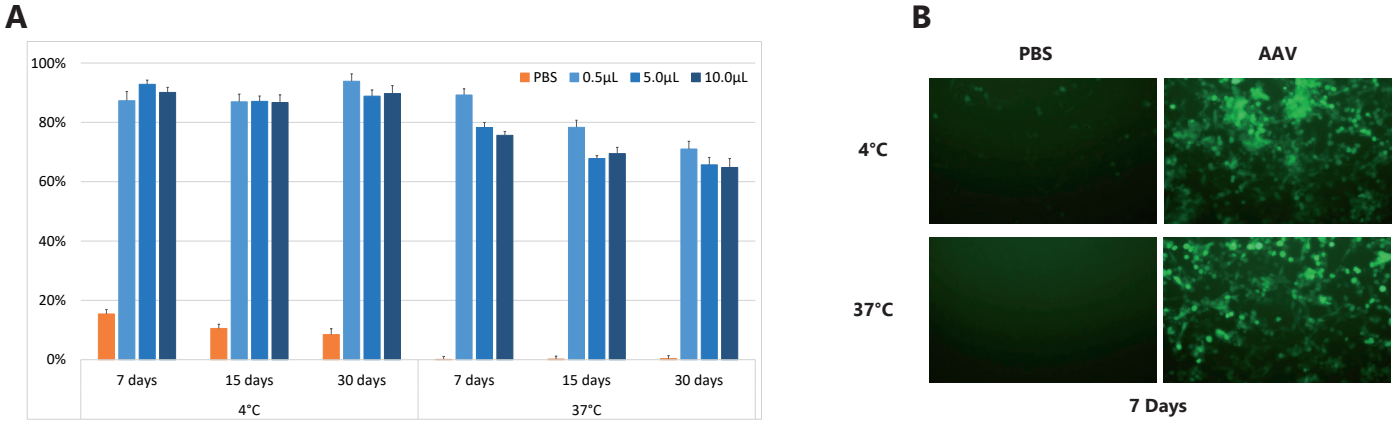
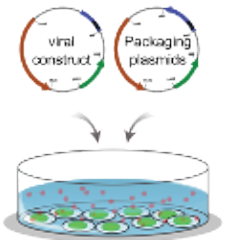


Fig 4 : AAVBlast stabilize and preserve AAV particles even at 37°C. AAV2 were mixed with PBS or ranging does of AAVBlast (0,5 ; 5 and 10 µl) and closed at 4°C or 37°C. After 7, 15 and 30 days, HeLa cells were transduced with viral suspensions and % of GFP+ cells was determined by flow cytometry after 72h (A). Representative photos of HeLa cells transduced for 72h with AAV stored at 4°C or 37°C for 7 days in presence or not of AAVBlast (B).

Related products :

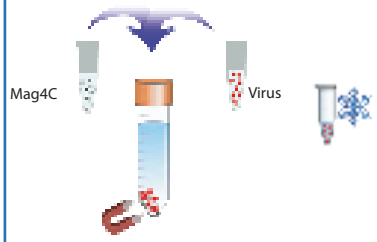
OZ Biosciences has created a comprehensive line of reagents dedicated to viral applications to help you in your research.

Viral production



- Calcium Phosphat transfection kit
- HYVIR transfection reagent

Capture, concentration & preservation



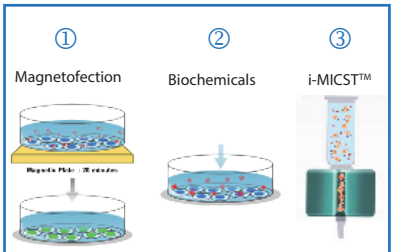
Magnetic nanoparticle technology

- Mag4C-LV kit
- Mag4C-AD kit
- Mag4C conservation buffers

Chemical solution

- Viro-PEG Lentivirus Concentrator

Infection enhancement



- ViroMag, ViroMag R/L ①
  AdenoMag, *In vivo* ViroMag
- LentiBlast Premium ②
- Viro-MISCT™ ③

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