

# LentiBlast Premium Results.

## 1. Description

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 favourable "membrane permeable effect" limiting the transmembrane potential changes, LentiBlast Premium is non-toxic.

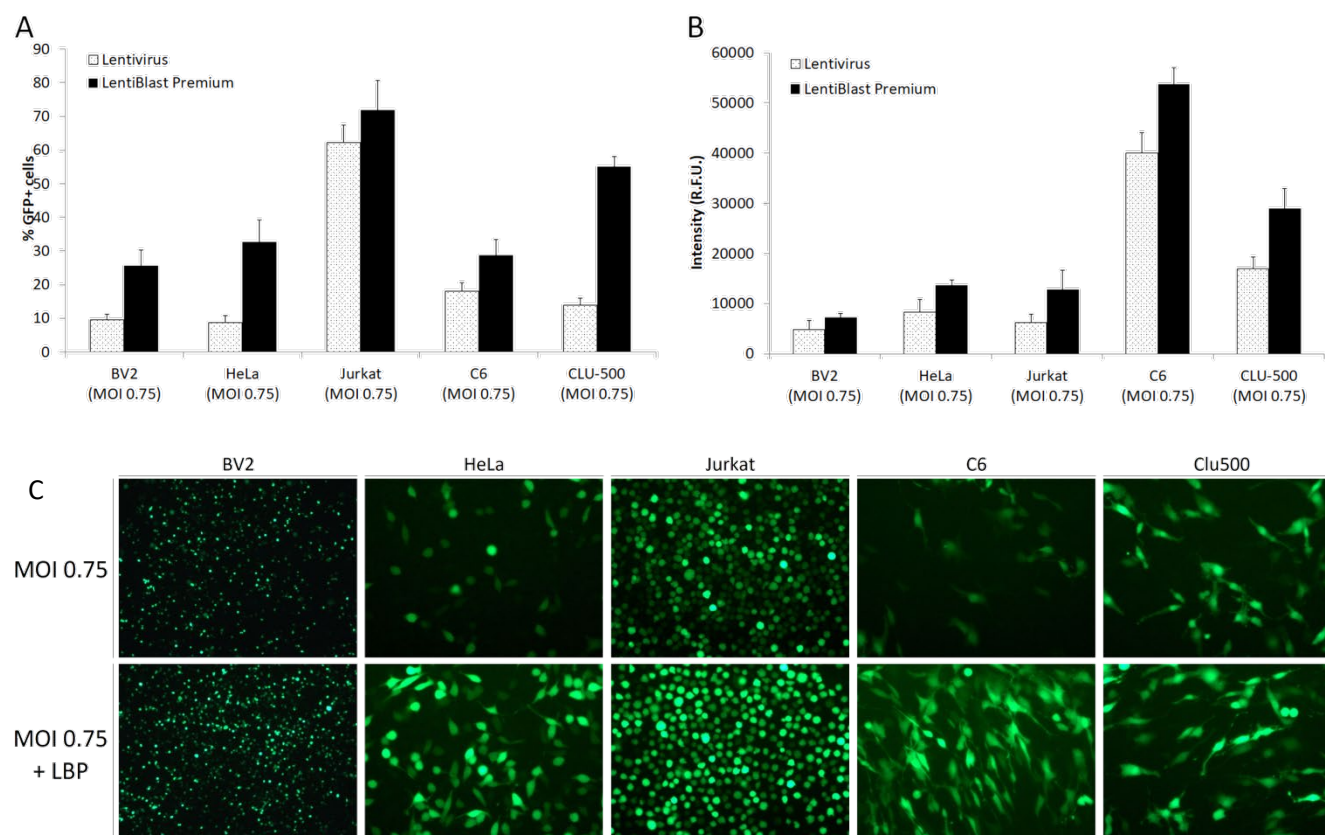
## 2. Storage and shipping condition

Storage & Shipping: Upon reception and for long-term use, store the LentiBlast Premium transfection reagent at -20°C - Stability: 1 year. The reagent is shipped at RT.

## LentiBlast Premium enhances Lentiviral infection in cell lines.

### LentiBlast Premium enhances transduction efficiency in cell lines and enhances protein expression.

Cell lines were infected at MOI 0.75 (0.75 viral particle 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).

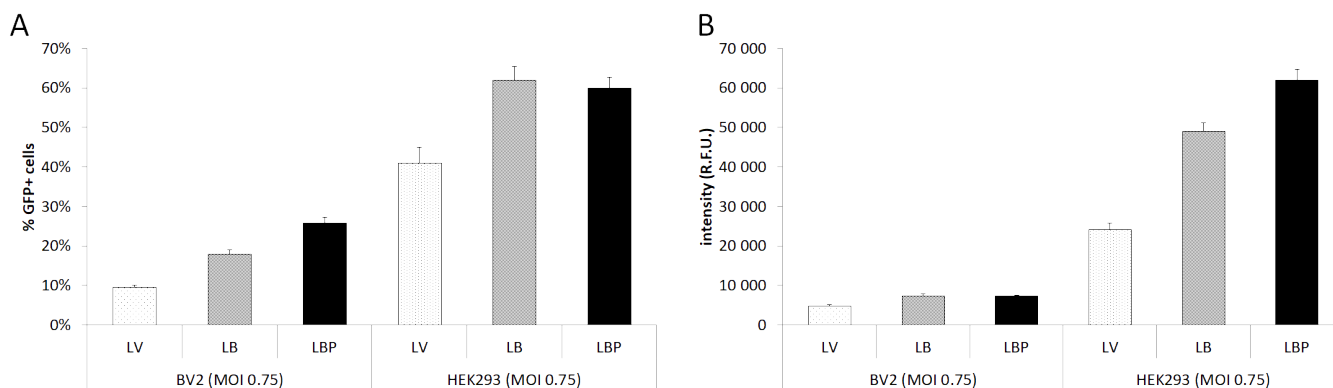


The Results demonstrated capacity of LBP to enhance infection and transduction in adherent and suspension cell lines.

## LentiBlast Premium outperforms LentiBlast depending on cell lines .

### LentiBlast Premium outperforms LentiBlast efficiency depending on cell lines.

BV2 and HEK-293 cell lines were transduced with Lentivirus encoding for GFP at the indicated MOI in presence or not of LentiBlast (LB) and LentiBlast Premium (LBP). After 72 h incubation, % of GFP positive cells (A) and mean intensity (B) of genetically modified cells were evaluated by flow cytometry.

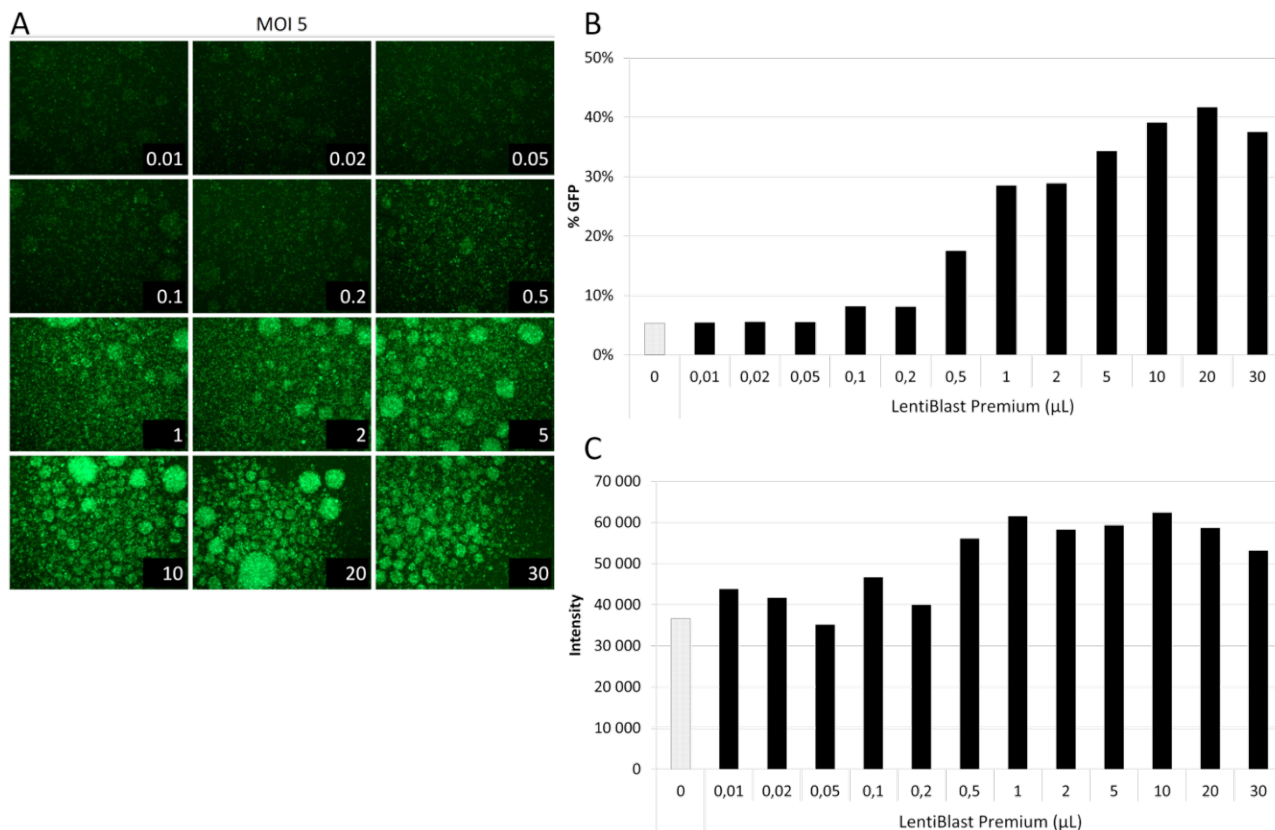


Results demonstrated that depending on the cell type, either the % of transduced cells and/or the overall protein production are increased with LBP compared to LB.

## LentiBlast Premium is the best solution for CD34+ stem cells.

### LentiBlast Premium was specifically designed for enhancing transduction in CD34+ stem cells (cell lines and primary CD34+) even at low MOI.

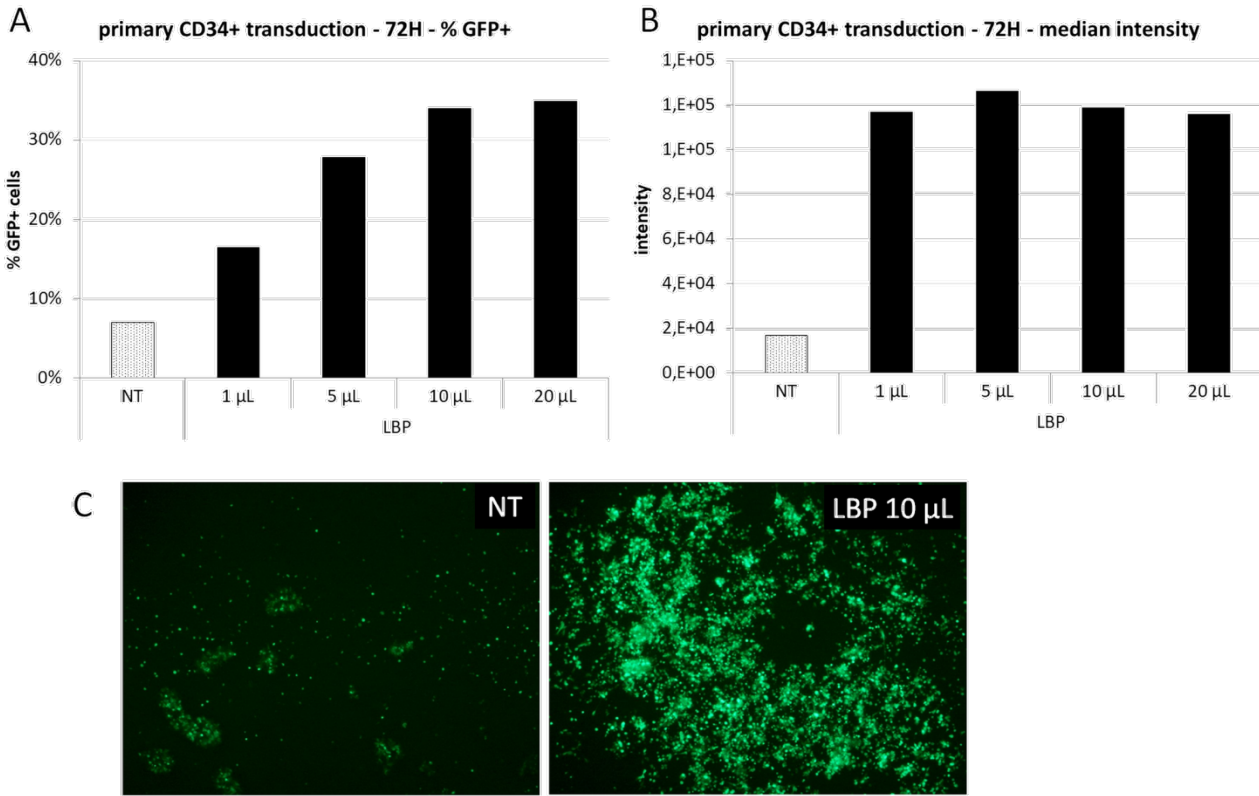
CD34+ stem cell line KG1a was transduced with Lentivirus encoding for GFP at low MOI of 5 in presence or not of increasing volumes of LentiBlast Premium (LBP). After 72 h incubation, transduction efficiency was visualized under fluorescence microscopy (A) and % of GFP positive cells (B) and mean intensity (C) of genetically modified cells were evaluated by flow cytometry.



Results demonstrated that LBP dramatically increase the transduction efficiency of lentiviral particles in KG1a at low MOI.

### LentiBlast Premium designed to enhance Lentiviral infection in Stem cells.

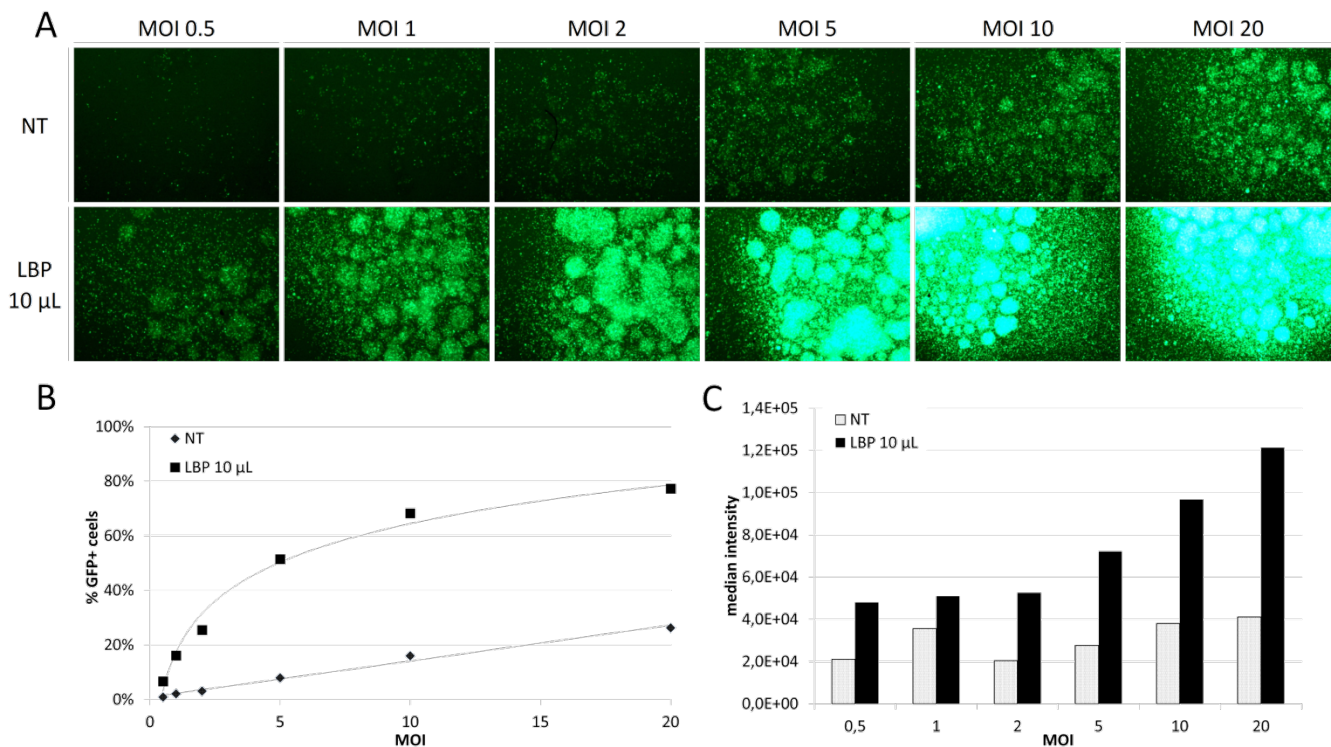
CD34+ stem cell line KG1a was transduced with increasing MOI of Lentivirus encoding for GFP in presence or not of 10 μL of LentiBlast Premium (LBP). After 72 h incubation, % of GFP positive cells (A) and mean intensity (B) of genetically modified cells were evaluated by flow cytometry and transduction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



Results demonstrated that LBP dramatically increase the transduction efficiency of primary CD34+ stem cells low MOI of 5.

**LentiBlast Premium designed to enhance Lentiviral infection in Stem cells whatever the MOI used.**

CD34+ stem cell line KG1a was transduced with increasing MOI of Lentivirus encoding for GFP in presence or not of 10  $\mu$ L 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.



Results demonstrated that LBP dramatically increase the transduction efficiency of CD34+ stem cell line whatever the MOI used.

# NOTES

## Additional products for Viral Transduction Enhancement

- **ViroMag** for enhancing viral transduction efficiency (suitable for all viruses)
- **ViroMag RL** for enhancing Lentiviral and Retroviral transduction efficiency
- **AdenoMag** specific for Adenoviral and AAV transduction

## Additional products for Virus Capture and Concentration

- **Mag4C-LV** for Lentiviruses
- **Mag4C-AD** for Adenoviruses

### Purchaser Notification

#### Limited License

The purchase of the LentiBlast reagent grants the purchaser a non-transferable, non-exclusive license to use the kit and/or its separate and included components (as listed in section 1, Kit Contents) for the sole purpose of in-house research only, provided that no license, right or permission is granted hereunder to a non-academic, for-profit or commercial Licensee to use the LentiBlast reagent for ex vivo gene therapy for hemoglobinopathies. The license does not include the use for any commercial or development purpose, including but not limited to any use for a) manufacturing, production, quality control, b) providing services, information or data, c) therapeutic, diagnostic, vaccine or prophylactic purposes or d) any applications which require regulatory approval as well as e) any clinical activities *in vivo* or *ex vivo*. The licensed use is limited to transfection of nucleic acids as described in the product manual. In addition, research only use means that this kit and all of its contents are excluded, without limitation, from resale, repackaging, or use for the making or selling of any commercial product or service without the written approval of OZ Biosciences.

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#### Product Use Limitations

The LentiBlast reagent and all of its components are developed, designed, intended, and sold for research use only. They are not to be used for human diagnostic or included/used in any drug intended for human use. All care and attention should be exercised in the use of the kit components by following proper research laboratory practices.

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Rev. 01/2019