LentiBlast Premium Results

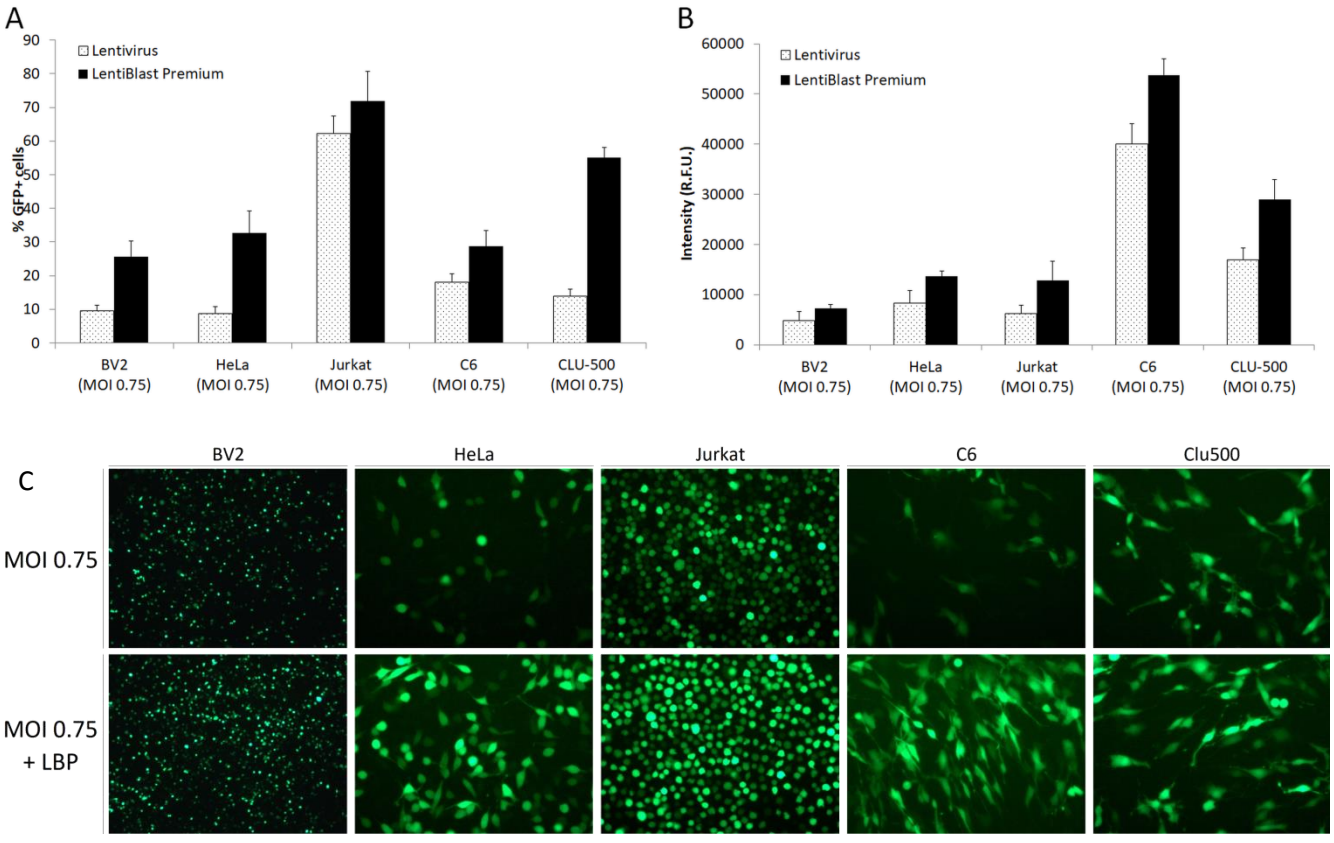
1. Description

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.

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 or not of LentiBlast Premium (LBP) at 1:100 dilution. 72 hours after transduction, % of GFP positive cells (A) and total intensity (B) were analysed by flow cytometry and fluorescence microscopy (C).

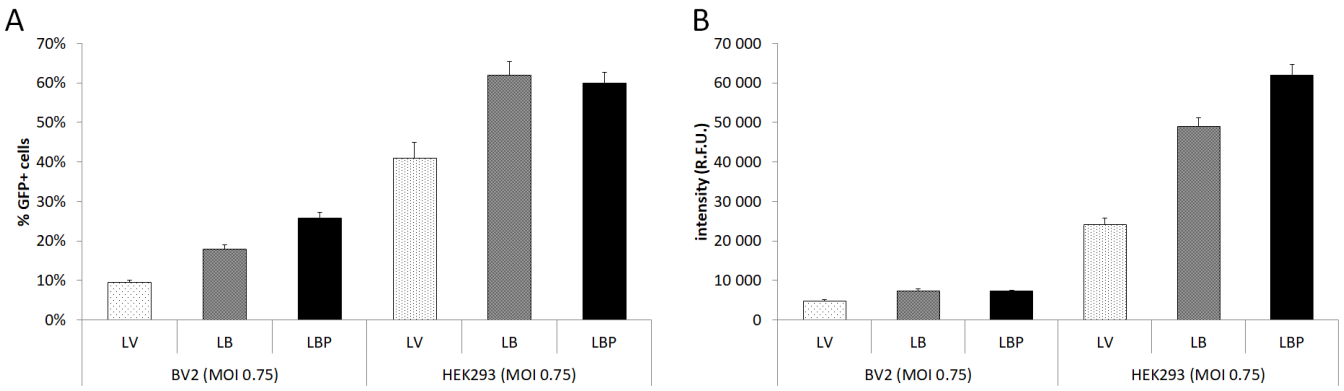


The results demonstrate the capacity of LBP to enhance infection and transduction in adherent and suspension cell lines.

LentiBlast Premium outperforms LentiBlast

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.

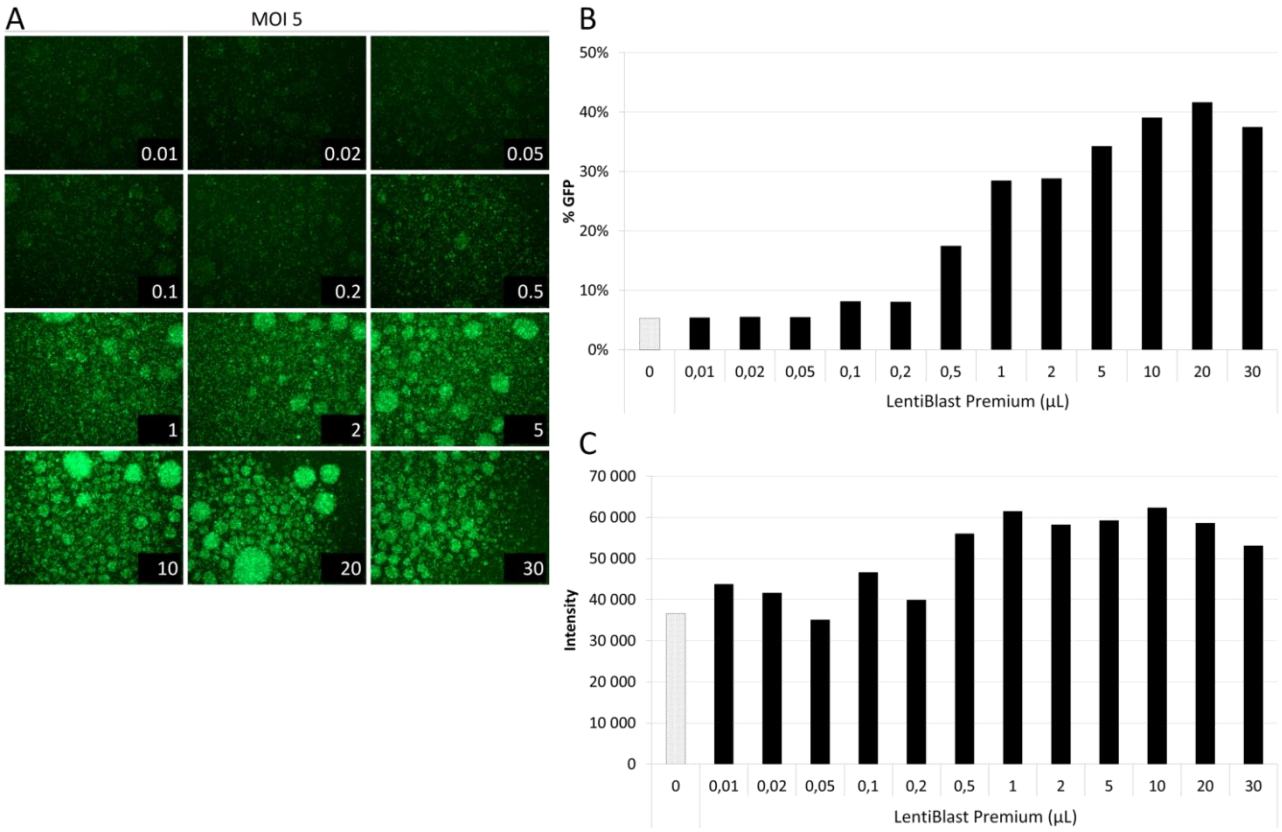


The results demonstrate that depending on the cell type, either the % of transduced cells and/or the overall protein production are increased with LBP compared to LB.

LentiBlast Premium is the right solution for CD34+ stem cells

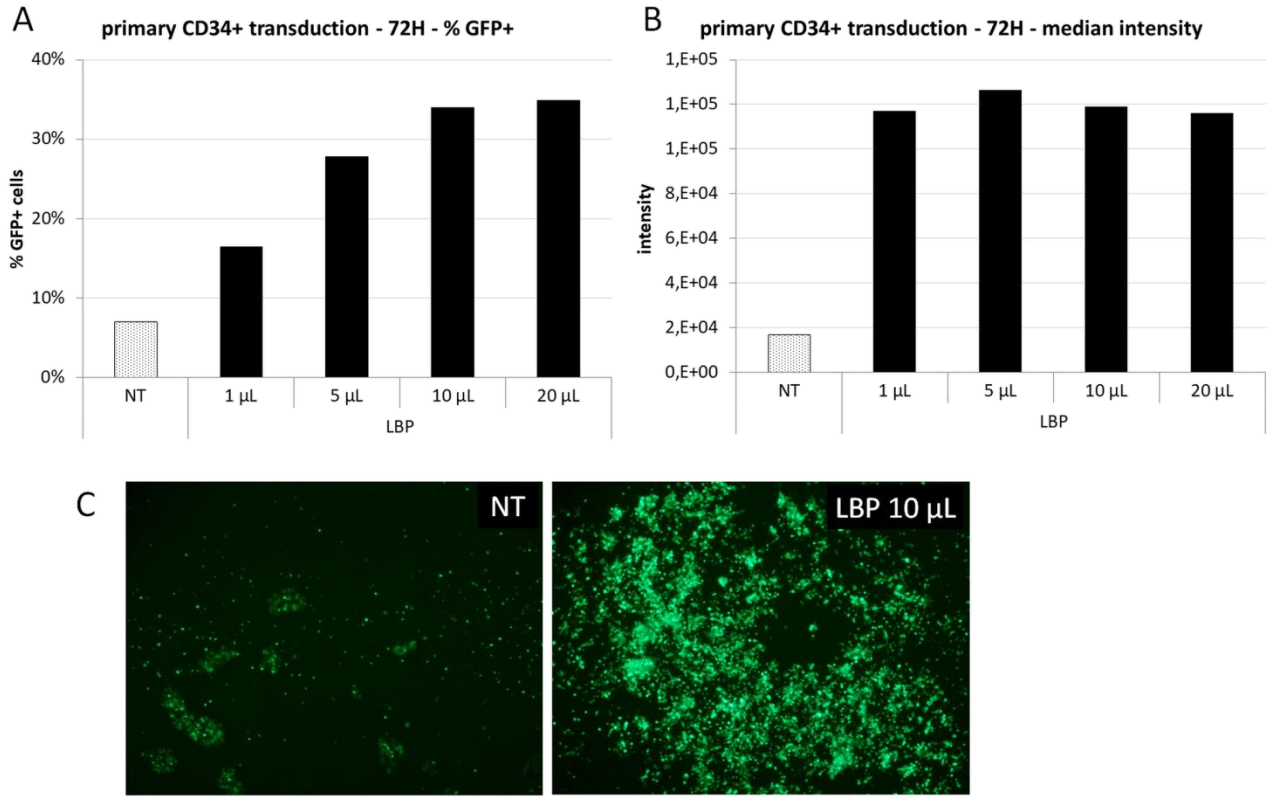
LentiBlast Premium was specifically designed for enhancing transduction in CD34+ stem cells (cell lines and primary CD34+) even at low MOI.

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.



The results show that LBP dramatically increases the transduction efficiency of lentiviral particles in **KG1a** at low MOI.

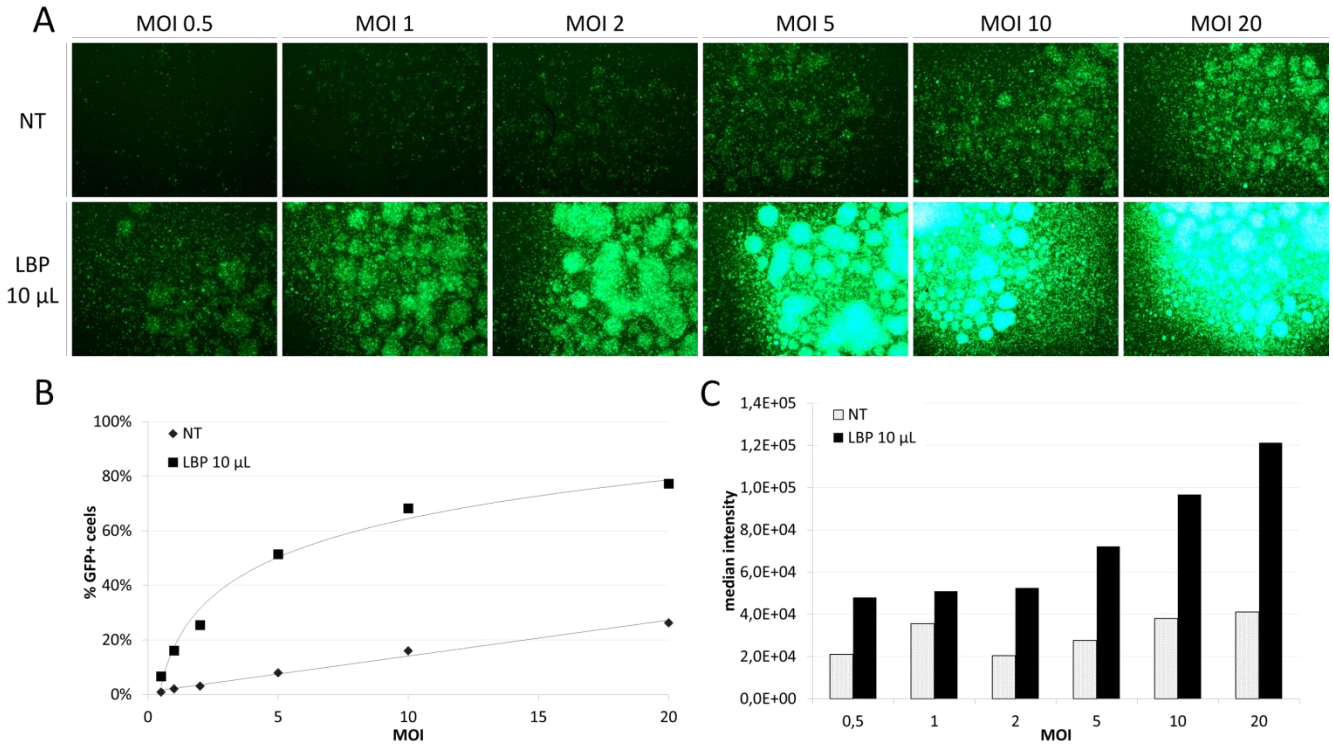
LentiBlast Premium designed to enhance Lentiviral infection in Primary CD34+.



The results show that LBP dramatically increases the transduction efficiency of **primary CD34+ stem cells** at 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 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.



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