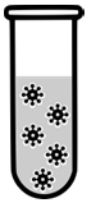
LentiBlast Premium

Lentiviral transduction enhancer

Use the following protocol to find the ideal conditions for LentiBlast Premium in 24-well plate. If conditions for lentiviral transduction/infection are unknown, we recommend starting with a MOI of 2 using a lentiviral vector encoding for a fluorescent protein.

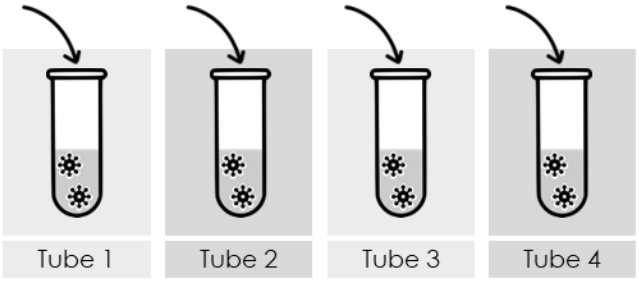
1. Prepare the viral suspension:

Dilute virus into culture medium sufficient for 4 samples (50µL each)



MOI 2 is recommended in case of unknown lentiviral transduction conditions

2. Dispatch equal volume of viral suspension into 4 tubes



3. Add LentiBlast Premium to each tube

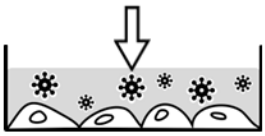
	Tube 1	Tube 2	Tube 3	Tube 4
LentiBlast Premium	-	**0.5 µL**	**5 µL**	**10 µL**

4. Mix vials by inverting

⚠ Do not vortex or centrifuge

5. Add viral suspension ± LentiBlast Premium to cells

Incubate the cells 24 H under standard culture

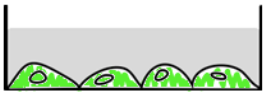


6. Optional: change medium after 24 H

Remove medium from the cells and add pre-warmed culture medium

7. Incubate cells 24 to 96 H

Incubate the cells under standard culture conditions (24-96 H)



For hard-to-transduce cells, it is recommended to add a centrifugation step to the standard protocol. Cells are prepared on the day of transduction, counted, pelleted and suspended in Lentivirus/LentiBlast Premium mixes.

Rev 04/25 CS

OZ Biosciences SAS | Ph: +33 (0) 486 948 516 | contact@ozbiosciences.com | **www.ozbiosciences.com**

OZ Biosciences USA Inc. | Ph: + 1-858-246-7840 | contactUSA@ozbiosciences.com

LentiBlast Premium
Lentiviral transduction enhancer

Before you begin

LentiBlast Premium is a novel patented chemical composition that dramatically increases lentiviral infection and transduction efficiency in any type of cells, adherent or in suspension, primary or cell lines.
The properties of this reagent allow simultaneously neutralizing electrostatic repulsions between membrane and viral particles and enhancing 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.

Protocol | lentiviral transduction enhancement

1. Cells preparation:
Cell culture prior to transduction: the day before transduction, prepare the cells according to table 1 below. Cells should be 20-50 % confluent at the time of transduction.

Tissue culture dish	Cell number
96-well plate	3-8 x 1.10^3
24-well plate	2-4 x 1.10^4
6-well plate	1-2 x 1.10^5

Table 1: Suggested cell number for lentiviral transduction per well.

2. Standard Protocol:
Use the quick protocol to find the ideal conditions for LentiBlast Premium in 24-well plate.

- We suggest using 0.5, 5 and 10 µL of LentiBlast Premium per condition.
- Do not use LentiBlast Premium with another viral enhancer or adjuvant.

a. Virus preparation: dilute virus into culture medium sufficient for 4 samples (**50 µL** per sample).

NOTE: If the lentiviral transduction/infection conditions are unknown, we recommend starting with a **MOI of 2** using a lentiviral vector encoding for a fluorescent protein.

b. Prepare tubes: dispatch equal volume of viral suspension into **4 tubes**.

c. Add LentiBlast Premium: add **0 to 10 µL** of LentiBlast Premium to each tube.

d. Mix vials by inverting.

e. Add viral suspensions to cells and incubate **24 H** under standard culture conditions – Optionally change medium.

f. Incubate cells 24 to 96 H: incubate the cells under standard culture conditions.

3. Centrifugation protocol
For hard-to-transduce cells, it is recommended to add a centrifugation step to the standard protocol. Cells are prepared on the day of transduction, counted, pelleted and suspended in Lentivirus/LentiBlast Premium mixes.

a. Detach and seed cells into **5 wells**, refer to table 1 for suggested cell density.

b. Follow steps **-a** to **-d** of the standard protocol and add LentiBlast Premium/lentivirus mixes to cells.

c. Centrifuge the plate **900 rpm** x **90 min**.

d. Incubate cells overnight and proceed to the remaining steps of the standard protocol.

Our technical team is at your disposal for any questions or optimization procedures:
✉ **- tech@ozbiosciences.com**

Use, handling and storage

For Research Use Only. Not for use in humans. Not for use in diagnostic or therapeutic purposes.

Shipping conditions: Room Temperature

Storage conditions LentiBlast Premium: -20°C

Shelf life: 1 year from the date of purchase

We recommend minimizing freeze-thaw cycles to preserve LentiBlast Premium integrity.

Kit contents

LBPX500: 500 µL of LentiBlast Premium Reagent
LBPX1500: 1500 µL of LentiBlast Premium Reagent

Certificate of analysis on demand.

Related Products

Ref	Description
#LBPSG50	LentiBlast Premium Superior Grade (SG)
#AAVB250	AAVBlast transduction enhancer for AAV

Purchaser Notification | Conditions of Sale

This product is sold in accordance with our general conditions of sale that you can find on our website: https://ozbiosciences.com/content/3-terms-and-conditions.

Rev 04/25 CS