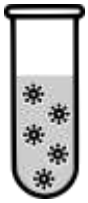
LentiBlast Premium Superior Grade
Lentiviral transduction enhancer

Use the following protocol to find the ideal conditions for LentiBlast Premium Superior Grade (SG) 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.

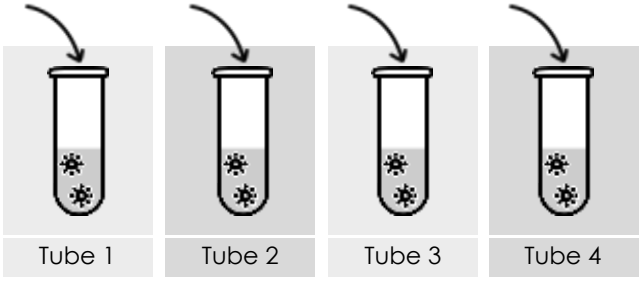
1. Prepare the viral suspension:

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 Superior Grade to each tube

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

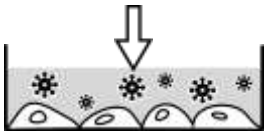
4. Mix vials by inverting

⚠ Do not vortex or centrifuge



5. Add viral suspension ± LentiBlast Premium SG to cells

Incubate the cells 24 H under standard culture conditions



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)



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Contact us regarding protocols for optimization procedure at: **tech@ozbiosciences.com** or visit our website: **www.ozbiosciences.com**.

LentiBlast Premium Superior Grade
Lentiviral transduction enhancer

Before you begin

LentiBlast Premium Superior Grade (SG) is identical in synthesis and formulation to LentiBlast Premium Research Use Only Grade (RUO Grade) but provides more quality controls, batch validation and documentation as required for preclinical trials.

LentiBlast Premium SG is a chemical lentiviral transduction enhancer nontoxic and very effective for enhancing viral driven genetic modification. It improves transduction in a wide range of cell types from CD34+ hematopoietic Stem cells to primary cells or cell lines such as HT10801 or SH-SY52. Moreover, its formulation ensures total compatibility and performance for enhancing infection and transduction in CD4+ and CD8+ T lymphocytes and is perfect for CAR-T therapy. It allows reducing MOI and cost while improving efficiency.

Protocol | lentiviral transduction enhancement

1. Cells preparation:
We recommend seeding adherent cells the day before transduction and suspension cells 1H before transduction according to table 1.

Cell type	Cell number per ml
Adherent	$1.0–1.5 \times 10^5$
Suspension	$2–4 \times 10^5$

Table 1: Suggested cell number for lentiviral transduction depending on cell type.

2. Standard Protocol:

- We suggest to first test 3 dilutions of LentiBlast Premium SG (**1:1000**, **1:100** and **1:50**).
- Do not use LentiBlast Premium SG with another viral enhancer or adjuvant.

The following protocol is given for 24-well plate:

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

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

c. Add LentiBlast Premium SG: add **0 to 10 µL** of LentiBlast Premium SG 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 SG 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 Lentivirus/LentiBlast Premium SG 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 SG integrity.

Kit contents

LBPSG15: 1500 µL of LentiBlast Premium Superior Grade
LBPSG50: 5000 µL of LentiBlast Premium Superior Grade

Certificate of analysis on demand.

Related Products

Ref	Description
#LBPX500	LentiBlast Premium transduction enhancer for LV
#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.

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