pB-mTSPAN4-GFP

PiggyBac transposon expression plasmid

PLM001

Instruction manual

Migrasome Therapeutics (Beijing) Co., Ltd.

pB-mTSPAN4-GFP

PiggyBac transposon expression plasmid

Catalog number	Pack size
PLM001	4 μg

Important: This product is designed for scientific research and is not intended for clinical diagnosis. Read the detailed risk and liability statement in this manual carefully before using the product.

Product information

1. Plasmid name: pB-mTSPAN4-GFP.
2. Plasmid length: 9,007 bp.
3. Plasmid type: PiggyBac transposon expression plasmid.
4. Bacterial antibiotic resistance: Ampicillin.
5. Mammalian cell antibiotic resistance: Hygromycin.
6. Solvent: Water.
7. Concentration: See the label.

Product contents

Component	PLM001
pB mouse TSPAN4 gene ORF cDNA clone expression plasmid, C-terminal GFP tag	4 μg
Instruction manual	1 copy

Storage and shipping

Ship with ice packs at 2–8°C. On receipt, store the plasmid at -20°C. Shelf life: 12 months.

Recommended reagents supplied by the user

1. 1× PBS; must be sterile.
2. Complete culture medium appropriate for the cells to be transfected.
3. Suggested transfection reagent 1, for readily transfected cells, such as 293T: linear PEI transfection reagent (instant-soluble), MW 40000; Yeasen, catalog no. 40816ES02.
4. Suggested transfection reagent 2, for cells that are less readily transfected: Lipofectamine 3000 transfection reagent; Invitrogen, catalog no. L3000015.
5. Opti-MEM; Gibco, catalog no. 31985062.

Recommended transfection reagents and methods

PEI transfection

Suitable for readily transfected cells, such as 293T.

For basic procedures and precautions, refer to the instructions for linear PEI transfection reagent (instant-soluble), MW 40000, from Yeasen (catalog no. 40816ES02).

Example procedure

Day 1

a) Seed cells in a 6-well plate at 5–6 × 10^5 cells per well.

Day 2

b) In tube A, combine 125 µL Opti-MEM (Gibco, catalog no. 31985062) with 4–5 µg plasmid DNA. If using multiple plasmids, use a total of 4–5 µg plasmid DNA.

c) In tube B, combine 125 µL Opti-MEM with 8–10 µL PEI 40000.

d) Combine tubes A and B, mix well and let stand at room temperature for 10 min.

e) Slowly add the transfection mixture to the cells.

Lipofectamine 3000 transfection

Suitable for cells that are less readily transfected, such as tumor cells.

For basic procedures and precautions, refer to the instructions for Lipofectamine 3000 (Invitrogen, catalog no. L3000015).

Example procedure

Day 1

a) Seed cells in a 6-well plate at 5–6 × 10^5 cells per well, ensuring 70%–90% confluence the next day.

Day 2

b) In tube A, combine 125 μL Opti-MEM (Gibco, catalog no. 31985062) with 7.5 μL Lipofectamine 3000.

c) In tube B, combine 125 μL Opti-MEM, 4–5 μg plasmid DNA and 5 μL P3000.

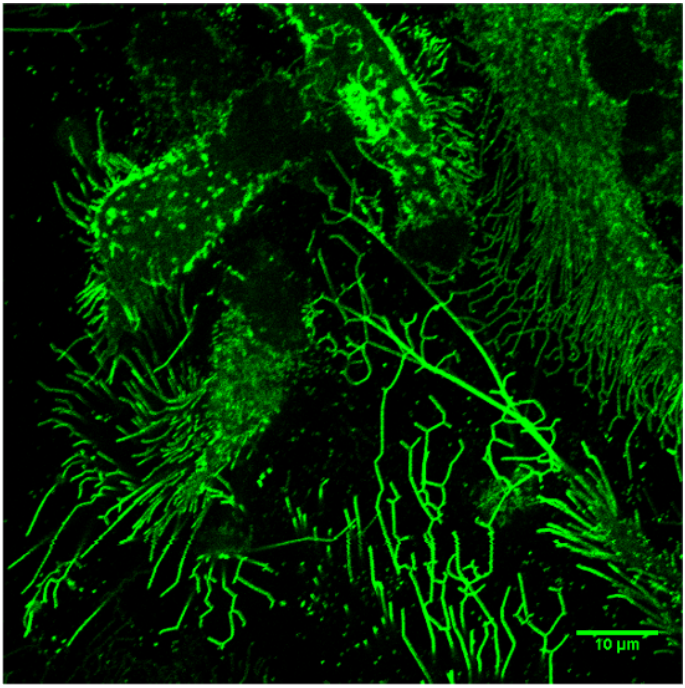
d) Mix the contents of tubes A and B separately. Slowly add tube B dropwise to tube A and mix well. Let stand at room temperature for 10 min.

e) Slowly add the transfection mixture to the cells.

Plasmid map

PLM001 plasmid map (9,007 bp).

Example results



A stable cell line obtained by transfecting DC2.4 cells with PLM001.

Scale bar: 10 µm.

Important risk and liability statement

This product is for research use only and has been designed and manufactured in accordance with applicable standards and regulatory requirements for research reagents. Read the product manual carefully before use. Users must comply with all applicable biosafety, legal, ethical and privacy requirements, including, but not limited to, the following:

1. Compliance: This product must not be used for clinical diagnosis, treatment or any other medical purpose.

2. Biosafety: Take appropriate biosafety precautions to avoid infection risks and strictly follow procedures for handling and storing biohazardous materials.

3. Ethics and privacy: Sample collection must comply with all relevant ethical review standards, protect personal privacy and be covered by appropriate informed consent.

4. Cross-contamination: Follow this manual to prevent sample cross-contamination and ensure accurate experimental results.

5. Storage and stability: Store the product correctly to maintain its stability and effectiveness. Failure to follow the storage instructions may impair performance.

6. Waste disposal: Dispose of used reagents and samples safely in accordance with local regulations.

7. Product performance limitations: Product performance and limitations are described in this manual. Migrasome Therapeutics accepts no responsibility for use outside these instructions.

Migrasome Therapeutics accepts no legal liability for any direct or indirect consequences of improper use of this product or failure to comply with applicable regulations. Contact customer service with any questions or requests for further information.

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