

User Manual

OriCell™ Dissociation Solution

For iPSC

Catalog No. PPF-10001



Introduction

Cell dissociation refers to the process of detaching adherent cells from the surface of culture vessels and generating a single-cell suspension. Through long-term research, the OriCell™ R&D team has continuously optimized cell dissociation conditions to develop a solution suitable for most iPSCs (induced pluripotent stem cells).

OriCell™ Dissociation Solution For iPSC has been rigorously validated across multiple iPSCs. It delivers high dissociation efficiency with minimal cellular damage, ensuring maximal cell viability post-dissociation. After seeding, cells exhibit high attachment rates and rapid recovery without affecting their proliferation rate.

OriCell™ Dissociation Solution For iPSC is suitable for most commonly used iPSCs.

Note: This product is intended for research use only and is not for diagnostic, therapeutic, clinical, household, or any other applications.

When citing our products in academic publications, please use the following format: “OriCell™ [Product Name] + [Catalog Number], from Cyagen Biosciences.”

Product Advantages

- Stable performance and simple operation.
- High dissociation efficiency, suitable for most iPSCs.
- Effectively preserves the multipotent differentiation potential of iPSCs post-thaw.

QC

- Pass the detection of bacteria, fungi, mycoplasma, and endotoxins.
- Pass the detection of osmotic pressure and pH.
- Pass the detection of product quality.

Please refer to "COA" for details.

General Handling Principles

1. Maintain strict aseptic technique. Ensure the entire lab and operating areas are kept clean.
2. Follow standardized protocols. Adhere strictly to the instructions provided in the manual.
3. Ensure proper storage and use. Store the product according to specified conditions and use it promptly to ensure optimal performance.

Product Stability and Storage Conditions

- The product has a shelf life of 1 year when stored at 4 °C and protected from light.
- Use the product within the shelf life. Do not use it after the expiration date.

Cell Dissociation

Materials Required

- OriCell™ Phosphate-Buffered Saline Solution (1X) (Cat. No.: PBS-10001)
- Clean, sterile and high-quality disposable consumables (pipettes, pipette tips, centrifuge tubes, etc.)

Steps

1. When cells reach approximately 80% confluency, they are ready for dissociation.
2. Bring the iPSC complete medium to room temperature before use.
3. Pre-warm the PBS and dissociation solution (Cat. No.: PPFD-10001) to 37 °C.
4. Aspirate the medium in the culture vessel.
5. Gently wash the cells twice with PBS, ensuring thorough coverage. Aspirate and discard the PBS.
6. Add the dissociation solution (approximately 1 mL per well for a 6-well plate). Gently tilt or swirl the plate to ensure the solution quickly covers the entire cell surface.
7. Place the vessel in a 37 °C, 5% CO₂ incubator. Monitor the cells under a microscope regularly. Terminate the dissociation when 70%–80% of the cells have shrunk and become rounded (typically within 3–4 minutes).
8. Aspirate the solution and immediately add 1 mL of complete medium (e.g., 1 mL/well for a 6-well plate, or 500 µL/well for a 12-well plate).
9. Gently pipette the medium against the bottom surface of the culture vessel to detach the cells.

Note: Avoid vigorous pipetting to prevent excessive bubble formation, which may damage the cells.

10. Re-seed the cells into appropriate culture vessels according to the desired split ratio or cell count.
11. Gently rock the vessels to ensure uniform cell distribution, then place them in a 37 °C, 5% CO₂ incubator with saturated humidity.

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