

TransIT®-293 Transfection Reagent

Quick Reference Protocol

Instructions for MIR 2700, 2704, 2705, 2706, 27105

Full protocol, SDS and Certificate of Analysis available at mirusbio.com/2700



SPECIFICATIONS

| | |
|-------------------|---|
| Storage | Store TransIT®-293 Reagent tightly capped at 4°C. Before each use , warm to room temperature and vortex gently. |
| Product Guarantee | 1 year from the date of purchase, when properly stored and handled. |

► PLASMID DNA TRANSFECTION PROTOCOL



Full protocol and additional documentation available at mirusbio.com/2700

Fill in volumes below based on culture vessel used for transfection (Table 1).

A. Plate cells

1. Plate cells in ___ml complete growth medium (per well).

For adherent 293 cells: Plate cells at a density of $0.8-3.0 \times 10^5$ cells/ml.

For suspension 293 cells: Plate cells at a density of $2.5-5.0 \times 10^5$ cells/ml.

2. Culture overnight. Cells should be $\geq 80\%$ confluent at the time of transfection.

B. Prepare TransIT®-293 Reagent:DNA complexes

1. Warm TransIT®-293 to room temperature and vortex gently.
2. Place ___ μ l of Opti-MEM® I Reduced-Serum Medium in a sterile tube.
3. Add ___ μ l plasmid DNA. Mix gently by pipetting.
4. Add ___ μ l of TransIT®-293 Reagent. Mix gently by pipetting.
5. Incubate at room temperature for 15-30 minutes.

C. Distribute complexes to cells

1. Add TransIT®-293:DNA complex mixture drop-wise to different areas of the well.
2. Gently rock plate for even distribution of complexes.
3. Incubate 24-72 hours.
4. Harvest cells and assay as required.

Table 1. Recommended starting conditions

| Culture vessel | 24-well plate | 12-well plate | 6-well plate |
|--------------------------------|---------------------|---------------------|---------------------|
| Surface area | 1.9 cm ² | 3.8 cm ² | 9.6 cm ² |
| Complete growth medium | 0.5 ml | 1.0 ml | 2.5 ml |
| Serum-free medium | 50 μ l | 100 μ l | 250 μ l |
| DNA (1 μ g/ μ l stock) | 0.5 μ l | 1 μ l | 2.5 μ l |
| TransIT®-293 Reagent | 1.5 μ l | 3 μ l | 7.5 μ l |

► Transfection Optimization

Determine the best TransIT®-293 Reagent:DNA ratio for each cell type. Start with 3 μ l of TransIT®-293 Reagent per 1 μ g of DNA. Vary the concentration of TransIT®-293 Reagent from 2-6 μ l per 1 μ g DNA to find the optimal ratio.

For additional optimization tips, see [full protocol](#).



Reagent Agent[®]

Reagent Agent[®] is an online tool designed to help determine the best solution for nucleic acid delivery based on in-house data, customer feedback and citations.

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Rev0 01282022