

TransIT®-293 Transfection Reagent

Quick Reference Protocol

Instructions for MIR 2700, 2704, 2705, 2706

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.



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

► PLASMID DNA TRANSFECTION PROTOCOL

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 × 10⁵ cells/ml.

For suspension 293 cells: Plate cells at a density of 2.5–5.0 × 10⁵ cells/ml.

2. Culture overnight. Cells should be ≥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 ____ μl of OptiMEM® I Reduced-Serum Medium in a sterile tube.
3. Add ____ μl plasmid DNA. Mix gently by pipetting.
4. Add ____ μl 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 μl	100 μl	250 μl
DNA (1 μg/μl stock)	0.5 μl	1 μl	2.5 μl
TransIT-293 Reagent	1.5 μl	3 μl	7.5 μl

► Transfection Optimization

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

For additional optimization tips, see full protocol.

► NOTES



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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