

TransIT®-293 Transfection Reagent

Quick Reference Protocol

Instructions for MIR 2700, 2704, 2705, 2706, 2710

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 x 10⁵ cells/ml.

For suspension 293 cells: Plate cells at a density of 2.5—5.0 x 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](#).



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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