

TransIT®-2020 Transfection Reagent

Quick Reference Protocol

Instructions for MIR 5400, 5404, 5405, 5406, 5410

Full protocol, SDS and Certificate of Analysis available at mirusbio.com/5400



SPECIFICATIONS

| | |
|-------------------|--|
| Storage | Store TransIT®-2020 Reagent tightly capped at -20°C. <i>Before each use</i> , 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/5400

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 cells: Plate cells at a density of $0.8\text{--}3.0 \times 10^5$ cells/ml.
For suspension cells: Plate cells at a density of $2.5\text{--}5.0 \times 10^5$ cells/ml.
- 2. Culture overnight. Most cell types should be approximately 80% confluent at the time of transfection.

B. Prepare TransIT®-2020 Reagent:DNA complexes

- 1. Warm TransIT®-2020 to room temperature and vortex gently.
- 2. Place ___µl of Opti-MEM® I Reduced-Serum Medium in a sterile tube.
- 3. Add ___µl plasmid DNA. Mix gently by pipetting.
- 4. Add ___µl of TransIT®-2020 Reagent. Mix gently by pipetting.
- 5. Incubate at room temperature for 15-30 minutes.

C. Distribute complexes to cells

- 1. Add TransIT®-2020: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 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®-2020 Reagent | 1.5 µl | 3 µl | 7.5 µl |

► Transfection Optimization

Determine the best TransIT®-2020 Reagent:DNA ratio for each cell type. Start with 3 µl of TransIT®-2020 Reagent per 1 µg of DNA. Vary the concentration of TransIT®-2020 Reagent from 1-4 µl per 1 µg DNA to find the optimal ratio.

For additional optimization tips, see [full protocol](https://mirusbio.com/5400).
Cell-type-specific recommendations available at [Reagent Agent: mirusbio.com/ra](https://mirusbio.com/ra)

► NOTES



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.

Learn more at: mirusbio.com/ra

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