

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

► 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

©1996-2025 All rights reserved. Mirus Bio LLC. All trademarks are the property of their respective owners.

For terms and conditions, visit www.mirusbio.com

Rev.C 123120

Mirus Bio LLC

www.mirusbio.com | techsupport@mirusbio.com | U.S. Toll Free: 844.MIRUSBIO (844.647.8724) | Direct: +1.608.441.2852